

# DISSTRO

060112 #43

engadget

GOOGLE OUTS  
THE NEXT, BEST  
CHROME OS

ASUS PREPARES  
ITS ZENBOOKS  
FOR PRIME  
TIME

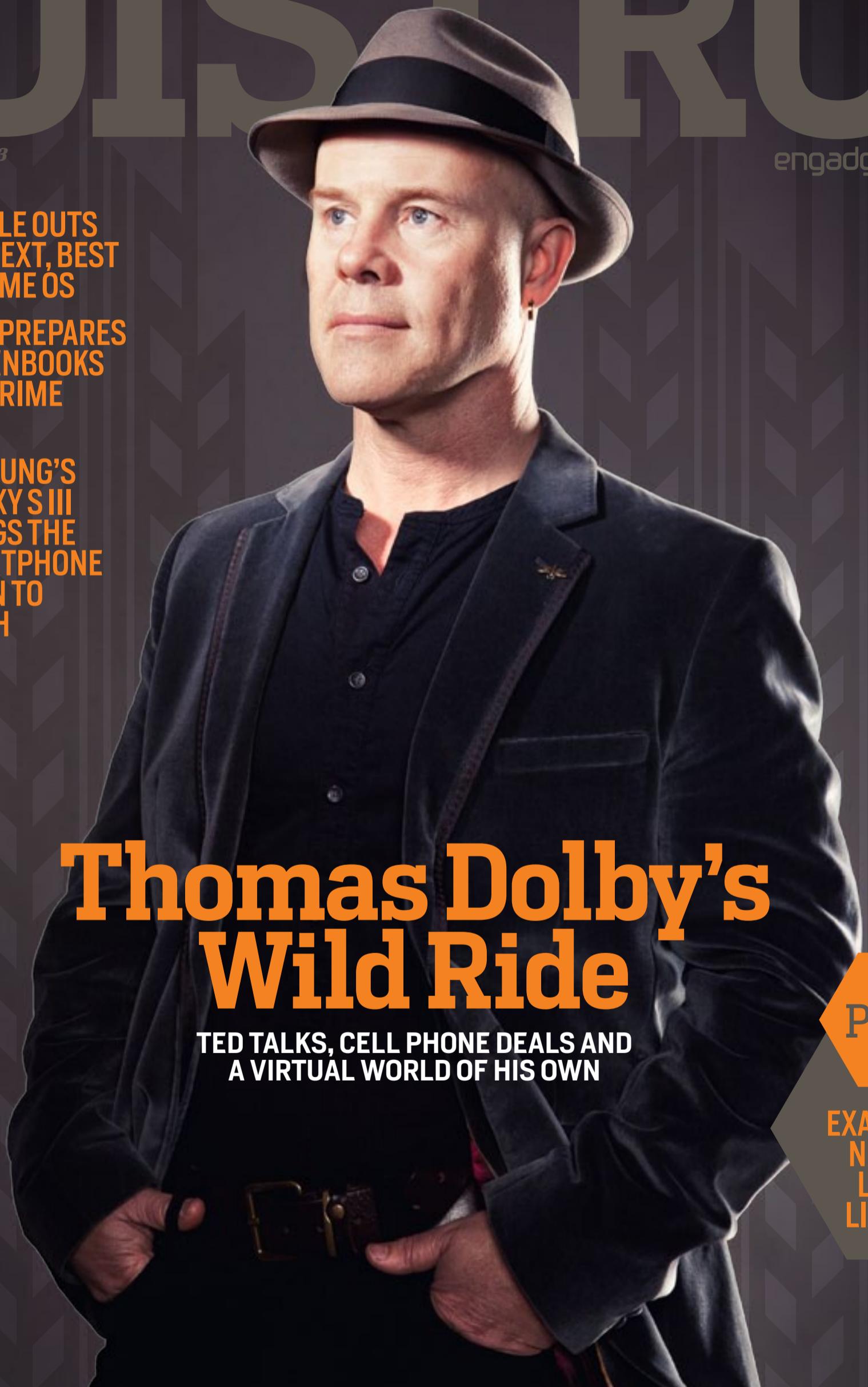
SAMSUNG'S  
GALAXY S III  
BRINGS THE  
SMARTPHONE  
DOWN TO  
EARTH

## Thomas Dolby's Wild Ride

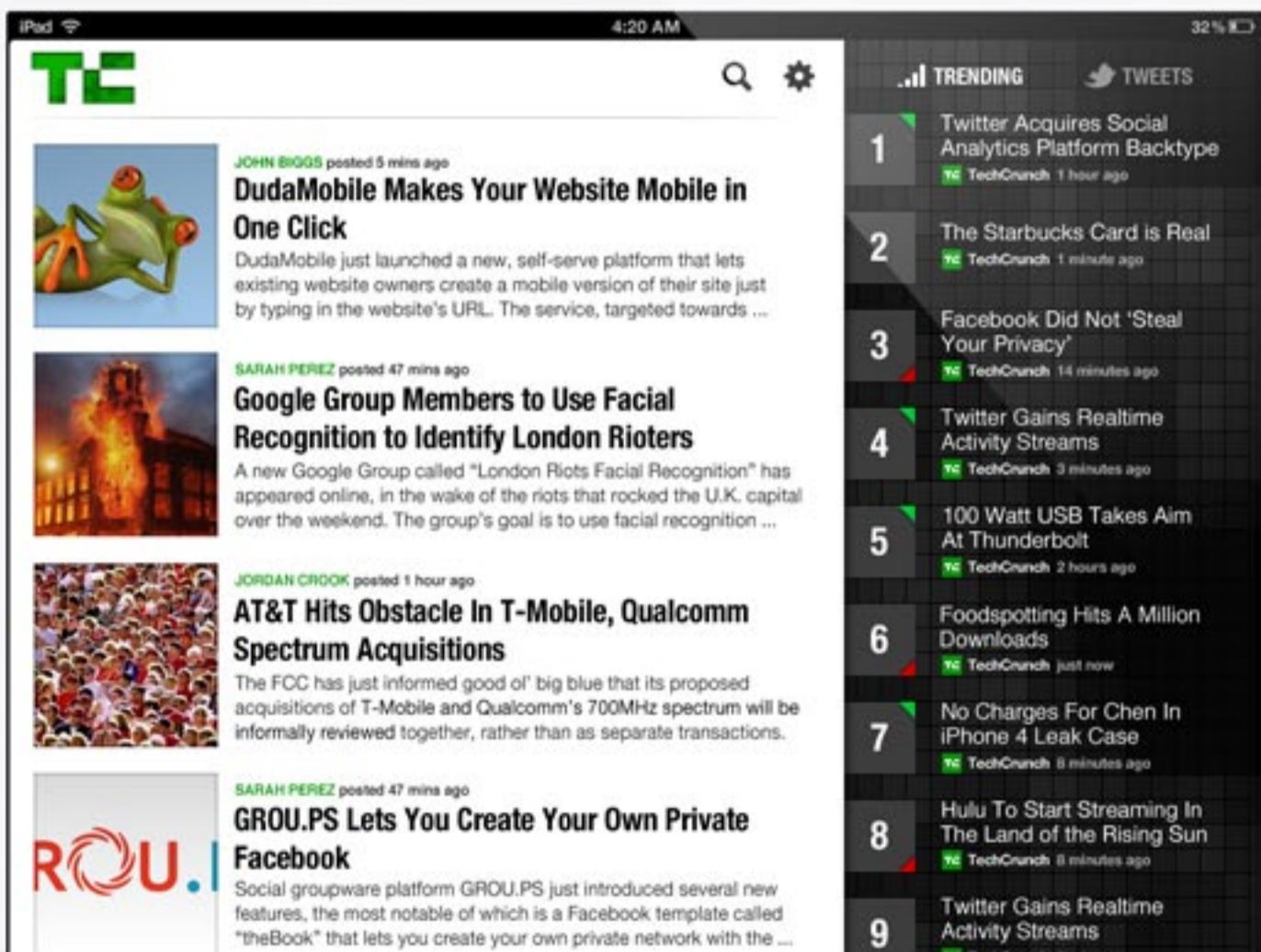
TED TALKS, CELL PHONE DEALS AND  
A VIRTUAL WORLD OF HIS OWN

PLUS

EXAMINING  
NOKIA'S  
LUMIA  
LINEAGE





iPad 4:20 AM 32% 

**JOHN BIGGS posted 5 mins ago**

### DudaMobile Makes Your Website Mobile in One Click

DudaMobile just launched a new, self-serve platform that lets existing website owners create a mobile version of their site just by typing in the website's URL. The service, targeted towards ...

**SARAH PEREZ posted 47 mins ago**

### Google Group Members to Use Facial Recognition to Identify London Rioters

A new Google Group called "London Riots Facial Recognition" has appeared online, in the wake of the riots that rocked the U.K. capital over the weekend. The group's goal is to use facial recognition ...

**JORDAN CROOK posted 1 hour ago**

### AT&T Hits Obstacle In T-Mobile, Qualcomm Spectrum Acquisitions

The FCC has just informed good ol' big blue that its proposed acquisitions of T-Mobile and Qualcomm's 700MHz spectrum will be informally reviewed together, rather than as separate transactions.

**SARAH PEREZ posted 47 mins ago**

### GROU.PS Lets You Create Your Own Private Facebook

Social groupware platform GROU.PS just introduced several new features, the most notable of which is a Facebook template called "theBook" that lets you create your own private network with the ...

**TRENDING** **TWEETS**

- 1** Twitter Acquires Social Analytics Platform Backtype TechCrunch 1 hour ago
- 2** The Starbucks Card is Real TechCrunch 1 minute ago
- 3** Facebook Did Not 'Steal Your Privacy' TechCrunch 14 minutes ago
- 4** Twitter Gains Realtime Activity Streams TechCrunch 3 minutes ago
- 5** 100 Watt USB Takes Aim At Thunderbolt TechCrunch 2 hours ago
- 6** Foodspotting Hits A Million Downloads TechCrunch just now
- 7** No Charges For Chen In iPhone 4 Leak Case TechCrunch 8 minutes ago
- 8** Hulu To Start Streaming In The Land of the Rising Sun TechCrunch 8 minutes ago
- 9** Twitter Gains Realtime Activity Streams TechCrunch

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# ISSUE 43

DISTRO

06.01.12

TABLE OF CONTENTS

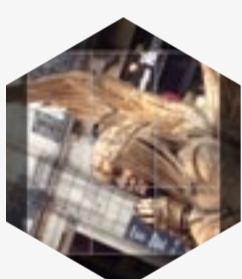
## ENTER



**EDITOR'S LETTER**  
E3 Awaits  
By Tim Stevens



**EYES ON**  
Nokia's Lumia Lineage



**HANDS ON**  
Facebook's Camera and Nokia's 808 Pureview



**WEEKLY STAT**  
Avast! Piracy and Copyright Claims on the Rise  
By Donald Melanson



**REACTION TIME**  
The Essential E3  
By Ludwig Kietzmann

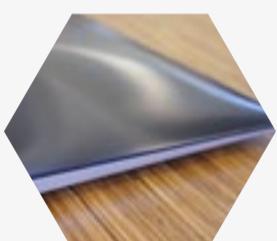


**REC READING**  
The New Yorker Goes SciFi  
By Donald Melanson

## REVIEW



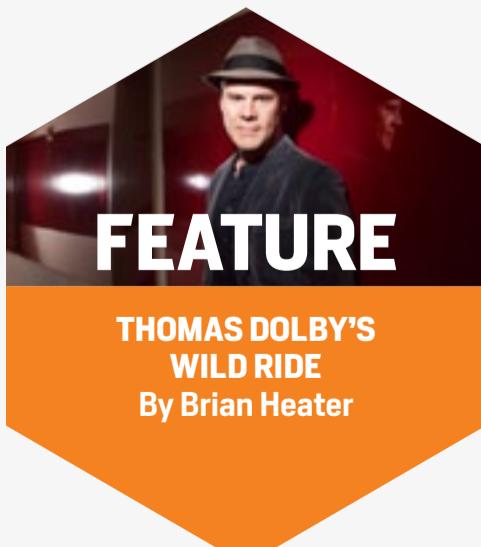
**Chrome OS**  
By Dana Wollman



**ASUS Zenbook Prime UX21A**  
By Dana Wollman



**Samsung Galaxy S III**  
By Sharif Sakr



**THOMAS DOLBY'S WILD RIDE**  
By Brian Heater

## ESC



**VISUALIZED**  
Zenith Flash-Matic



**Q&A**  
Barobo's Graham Ryland



**IRL**  
A Sparrow, a GlowLight and Nikon's D800



**SWITCHED ON**  
Cisco's Hard-Luck Hardware  
By Ross Rubin



**REHASHED**  
Tim Cook, Facebook, Phablets and More



**TIME MACHINES**  
Portable Evolution

*On the Cover:* Photograph by Douglas Sonders for Distro



# E3 AWAITS

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06.01.12



**EDITOR'S LETTER**

**M**ay has drawn to a close and one incredibly busy June looms ahead of us. Over the next month, we'll be bringing you live coverage of the Electronics Entertainment Expo in Los Angeles, Computex in Taipei, Apple's Worldwide Developer Conference in San Francisco and then, to bring the month to a close, we'll be back in SF for Google I/O. Yes, that's a lot of frequent flier miles to be earned, and we can't wait to get started.

Our first trip to San Francisco this month will be for the June 11th WWDC keynote. Historically this was where the latest iPhones were unveiled, a trend that was broken last year when Steve Jobs focused entirely on software in what would be his last keynote. The iPhone 4S would come later and indeed this year we're not expecting a new iPhone to be shown — but if one is, we now have a better idea of what it may look like.

From two separate sources we saw images of a supposed back casing of what many are calling the "iPhone 5" — but could just as easily be labeled "iPhone 6" if we're counting model revisions or, indeed, just "the new iPhone." The parts show a device that's thinner and taller than the iPhone 4

and, interestingly, available in both black and raw aluminum. It would also feature the new, smaller Dock connector we've seen bandied about for quite some time. Of course, there's no guaranteeing that these parts are legitimate, and indeed the font on the back of one looked a little suspect, but they're the best glimpses we've yet seen of what could be the next-gen iPhone.

That comes despite Tim Cook saying that Apple is "doubling down on secrecy" when it comes to its products. This quote came at the D10 conference this week, where Cook made quite an impression by being rather chatty about a number of topics. One was the manufacturing of products, which he said he wants to happen in the US. However, he quickly pointed out that the manufacturing facilities needed can't easily be found on domestic shores. We have to say that if anybody can find a way, it's a company that made over 11 billion dollars in net profits last quarter.

Also chatty at D10 was Spotify director Sean "you know what's cool?" Parker, who was asked in no uncertain terms whether Apple played a part in getting the streaming music service's



US launch delayed. He didn't come out and say yes, but he *did* give a strong indication that the company's attempts at building partnerships was being actively delayed. If you've wondered why the process seemed to drag on endlessly, maybe now we have a better idea.

We also got a better idea of how the almost mythical Google Glass augmented reality goggles work. Sergey Brin made an appearance on *The Gavin Newsom Show* where he graciously took off the glasses and let the host wear them — but only for a moment. He showed how the integrated camera works and demonstrated the touch-sensitive section on the right arm, which acts like a trackpad for navigating through menus, projected onto a small display that hovers over the wearer's right eye. Sadly, it could be another year or more before we get to try these out for ourselves, with Sergey indicating they might not be released until 2013.

Google also augmented its Google+ and Maps services this week with Zagat ratings. The "I wouldn't eat there if I were you" rating service was acquired back in September and now Big G has finally pulled off the integration. In Google+ Local and Maps you'll now get yourself proper and official reviews that should be rather more reliable than those incredibly positive user-submitted ones that were obviously written by various members of the wait staff.

Finally, rumors of a Facebook phone began swirling again this week, with

talk of mysterious former Apple hardware engineers being swept into the Zuckerberg empire. The supposed intent is the creation of a platform that the company can own, rather than playing just a bit part in someone else's story. That seems like a mighty ambitious thing for a social network to do, but then again creating an e-reader is a brave thing for an internet retailer to do, and Amazon certainly hasn't regretted taking that plunge.

In this week's Distro we're exploring the wild ride of Thomas Dolby, from being blinded by science in the '80s to, more recently, releasing an album with a tie-in online adventure game. Sharif Sakr dives into the Samsung Galaxy S III and pits it against its bitter rival, HTC's One X. Dana Wollman and Myriam Joire give us a tour of the latest release of Google's Chrome OS, and in IRL we're looking at the latest version of Sparrow on iOS, the Nikon D800 and the Nook Simple Touch GlowLight. Ross Rubin examines Cisco's hit-or-miss nature on the hardware side and Barobo's Graham Ryland does some Q&A. Now, get to the swiping. That Thomas Dolby feature isn't going to read itself! ▶



TIM STEVENS  
EDITOR-IN-CHIEF,  
ENGADGET



# ENTER

EYES-ON

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## LUMIA LINEAGE



### A FAMILY AFFAIR

**THE APPEAL:** The rather dapper Lumia 800 and more democratically minded 710 jump-started a “strategic alliance” between Nokia and Microsoft; an alliance seen as an opportunity for the pair to put a new face on their smartphone strategies.

**THE DESIGN:** Espoo’s ill-fated MeeGo phone, the N9, introduced the “fabula” design language that would carry over to members of the Lumia family and define the way forward for Nokia.



## LUMIA LINEAGE



**NOKIA N9:** Nokia's last hurrah as an independent player, the MeeGo-packing N9, was a major step forward for the company in terms of both user experience and aesthetics. Alas, it wasn't meant to be.



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ENTER

EYES-ON

## LUMIA LINEAGE



**LUMIA 900:** This AT&T exclusive didn't fall far from the "fabula" tree, though it does pack a larger screen at 4.3 inches and a front-facing camera (not found in the 800).



## LUMIA LINEAGE



**LUMIA 800:** Looking an awful lot like its MeeGo-packing forebear, the 800 was touted as “the first real Windows Phone” at launch. Its polycarbonate shell comes in three flavors: black, cyan and magenta.



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EYES-ON

## LUMIA LINEAGE



**LUMIA 710:** Launched alongside the 800 in October 2011, the 710 was presented as a “no-nonsense” ringer and sports a Swatch-like design, complete with swappable back covers.



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ENTER

HANDS-ON



Click on  
product  
names to  
read full  
stories



# NOKIA 808 PUREVIEW

**PRICE: €480 (\$559)**

**AVAILABILITY: Q2 2012**

**THE BREAKDOWN:** We spent a few hours shooting and found that this looks to be the new benchmark for mobile imaging.

**Nokia invited us** to take a tour of the Carl Zeiss HQ in Germany, all in the name of getting some time to shoot with the 808 PureView. That hulking 41-megapixel sensor dominates the body, but how do those photographic results turn out? We were most impressed with how the device handled on automatic settings and the interface on the 808 PureView was far more accessible and quick — especially compared to its iOS and Android rivals. The one-touch zoom on 5-megapixel images (by simply swiping across the display) is an addictive and welcome addition, using the physical button to capture high-speed images.



# FACEBOOK CAMERA

**PRICE:** Free

**AVAILABILITY:**  
**Now Available**

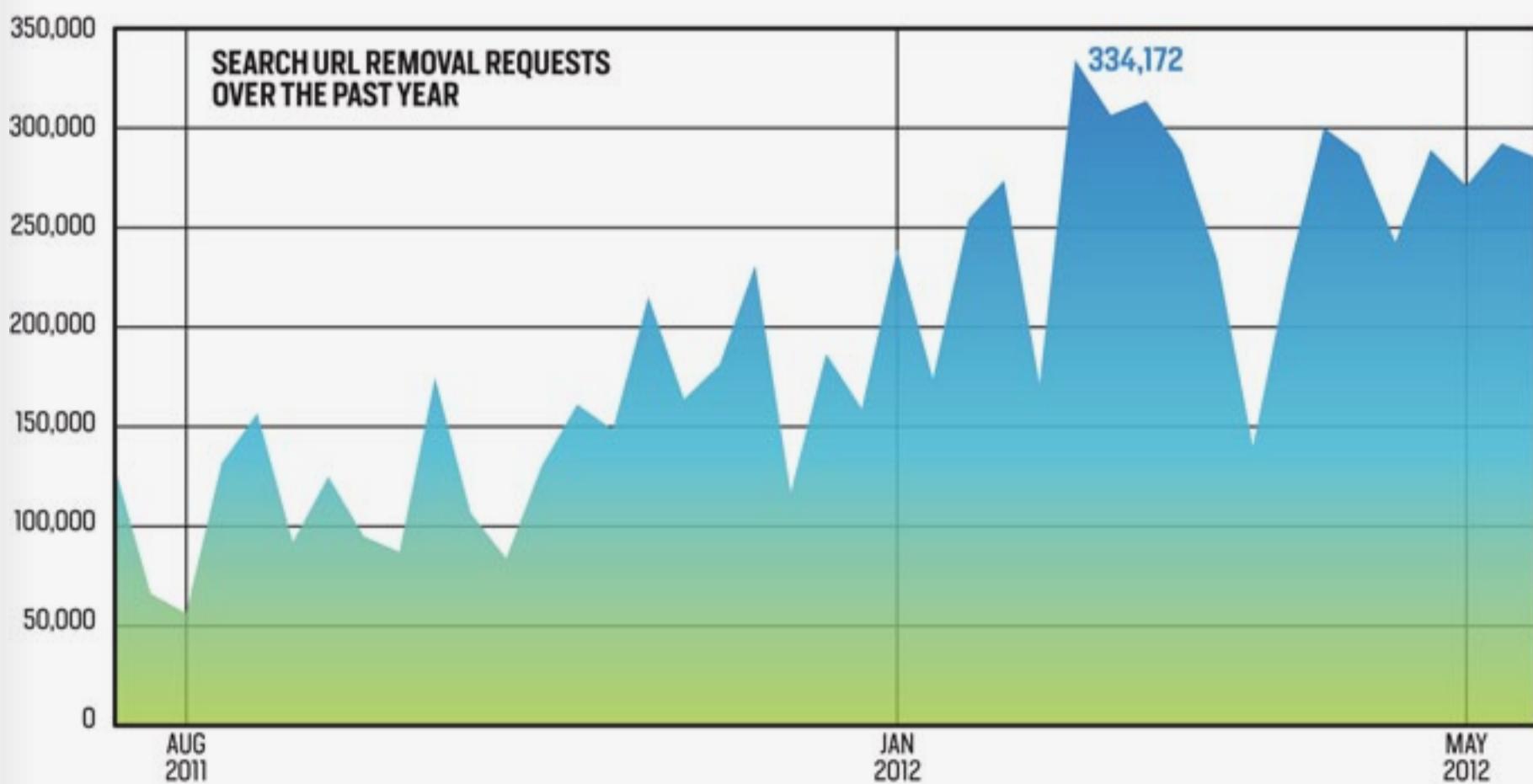
**THE BREAKDOWN:** **Were we wowed by Facebook Camera? Not really, but we weren't disappointed in it either.**

Facebook has kept itself rather busy in the last month or so, but that doesn't mean it stopped working on other projects in the meantime. Facebook Camera brings a fresh user interface and some light Photoshop-esque features to the table: filters, cropping, zoom, twist and so on. The user interface begins with two panels. The top shows the most recent images in your camera roll, while the bottom provides you with a feed of friends' pictures. We have no issues with Facebook's decision to make a separate camera app, we'd just prefer to see some of this core functionality included within the main setup.



# Avast! Piracy and Copyright Claims on the Rise

**Google has been** publishing what it's dubbed Transparency Reports for some time now — detailing things like government requests to remove content from search results or requests for users' information — and it's now added another big chunk of data to them in the interest of full disclosure. Starting today, you can see the number of removal requests it receives from companies over copyright and piracy concerns. As you can imagine, there's a lot — over 1.2 million in the past month alone, a number that Google notes is increasing at a substantial rate. Among those asking for takedowns, Microsoft is by far the leader, filing well over half a million requests all by itself in the past month (the film and music industries are also, of course, well represented). —Donald Melanson



COPYRIGHT  
REMOVAL  
REQUESTS  
RECEIVED IN THE  
PAST MONTH

1,255,402  
URLs Requested  
to be Removed

24,374  
Targeted Domains

1,341  
Copyright Owners

1,099  
Reporting  
Organizations

# THE ESSENTIAL E3

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06.01.12

ENTER



REACTION  
TIME

BY LUDWIG KIETZMANN

**I**t's easy to separate the fresh freelancers from the deeply ingrained industry curmudgeons on the E3 show floor. The former group barges into the Los Angeles Convention Center with a spring in their step, a sparkle in their eye and the reverent willingness to strip down and be consumed in wonderment, as the show caresses and dazzles them with gaming's finest wares. Cynicism and numbness haven't had an opportunity to creep in yet.

Meanwhile, the other guys are having a cigarette and talking trash on the other end of the spectrum. They're more likely to describe the Electronic Entertainment Expo as a disorienting nebula of noise that flattens the senses and squeezes the humanity out of you from bottom to top, like it's the last bit of toothpaste in the tube. To them, E3 is an exhausting act of catching bullets in a burning ammunition depot, with breaking news and rapid-fire developments flying in from all directions.

What makes E3 so fascinating to

some — and so irritating to others — is that it doesn't have a filter. It's not particularly aimed at just press, consumers or retailers, so it just spills over everyone and blasts out light and sound in 360 degrees. Joystiq sends a massive team of writers to cover the event every year because there's so much of it, and so much of it is in need of filtration and packaging. From the perspective of readers and podcast listeners, the press should be somewhere between translator and bulletproof vest.

Once you cut through the ridiculous



opulence — a product of the friction between big publishers and competing games-as-products — you can find all the bits that make for exciting reading. Most of the interest is directed at the big news conferences, in which manufacturers drop their metaphorical bombs and appeal to our love for a good surprise, but those don't give much insight into the development of big-business games. What we're looking for are the small glimpses into the future that you can only get when all of the industry's players are in the same space for a few hectic days, shaking hands and sweating and emitting the odor of convention-center humanity.

In some ways, the show is about survival just as much as it is news gathering and interviewing. The sea of people, which incorporates industry executives, marketers, retailers, foreign press, guys who have an uncle at Gamestop and developers, is a dangerous, infectious beast all by itself. And for the press, which has a slightly antagonistic relationship to many of the show's players, it can sometimes be hard to shake the feeling that subtle assassination is in the works.

There's little chance of writing anything negative, for instance, if your internal organs have been pulverized by the sound waves coming from 16 subwoofers and tweeters cranked up to jet-engine volumes. The fact that E3 doesn't elicit a noise complaint from another galaxy is either proof that there

## 5 NEW RELEASES FOR THE WEEK OF JUNE 1



### MAD RIDERS

XBLA, PSN, PC - \$10



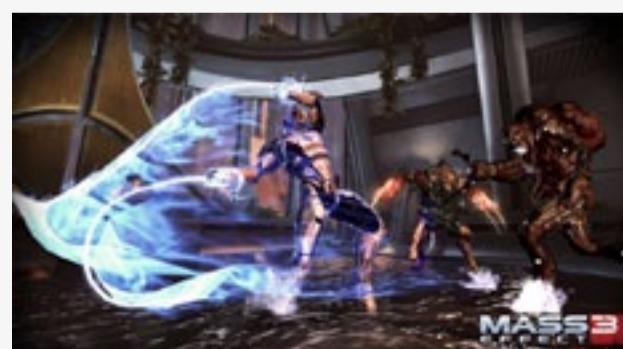
### MAX PAYNE 3

PC - \$60



### RESISTANCE: BURNING SKIES

PlayStation Vita, PSN - \$40



### MASS EFFECT 3: REBELLION PACK

Xbox 360, PS3, PC - Free



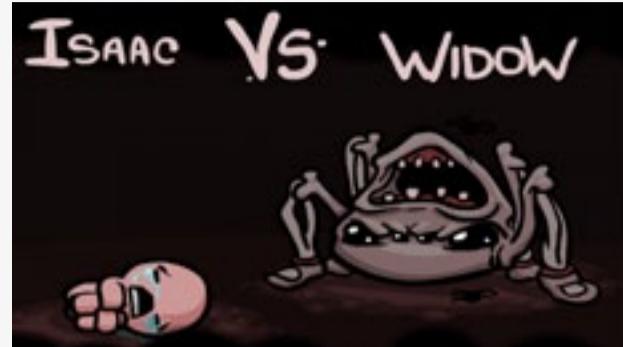
Click on  
games  
to buy



is no intelligent life out there, or that aliens are more polite and patient than we give them credit for. For some reason, publishers and marketers believe that nobody can be impressed unless they're blown away in a cinema (another habit gaming has picked up from Hollywood).

It's easy to fall into the camp of E3 cynics — and even harder to find your way out — after a stroll through the convention center, which is usually dark, save for the lights of a million screens and flashy logos. The forced excitement, made palpable through glitz and excess, can bulldoze the real excitement of what should be a remarkable venue. Everyone is in one place, planting a flag that represents the growth and continued evolution of the medium as a business. It just happens to be a

**“The fact that E3 doesn’t elicit a noise complaint from another galaxy is either proof that there is no intelligent life out there, or that aliens are more polite and patient than we give them credit for.”**



**THE BINDING OF ISAAC:  
WRATH OF THE LAMB**

PC / Mac - \$3

flag covered in sequins and flashing LED lights.

Tolerating the tacky side, and treating E3 as a necessary evil, is what we end up doing every year. It's why journalists and readers share an equal amount of delighted exclamation and dispirited eye rolls. The small, un-

told stories should emerge if we show up and find them, and give them the same space we do to the big, easy announcements. If we're doing our job right, you'll come to think of E3 just like us — as that best, worst, exhausting, exciting, stupid and awesome show. D





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headlines  
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stories

**Meet 'Flame', The Massive Spy Malware Infiltrating Iranian Computers**

by Kim Zetter

***Wired Threat Level***

We've previously recommended Zetter's extensive feature on the Stuxnet computer worm in this section, and she returned this week with a similarly definitive piece on "Flame," a new piece of malware that makes Stuxnet pale in comparison — and is also primarily targeting Iran.

**Philip K. Dick,  
Sci-Fi Philosopher**

by Simon Critchley

***The New York Times***

Another dose of SF to go along with the *New Yorker* issue, this three-part feature on Philip K. Dick focuses more on the author's later life and philosophical leanings than his well-known science fiction works, drawing heavily on the recently published *Exegenesis*.

**How Tim Cook is  
Changing Apple**

by Adam Lashinsky

***Fortune***

He didn't get direct access to Tim Cook for the piece, but Adam Lashinsky still managed to put together a fairly extensive profile of the Apple CEO for this *Fortune* cover story which, despite the title, is as much about how he has kept the company the same as how he has changed it.

**Mom Was Right: Go Outside**

by Jonah Lehrer

***The Wall Street Journal***

Chances are you're reading this on a tablet at home — maybe in a big city. As outlined in this piece, though, there's growing scientific evidence that suggests a break from both can lead to some real cognitive benefits, including a pronounced increase in creativity across all age groups.

## The New Yorker – The Science Fiction Issue

One look at the table of contents for this one and it's clear that *The New Yorker* wasn't messing around. An unpublished 1973 essay on *A Clockwork Orange* from Anthony Burgess himself, new (science) fiction from Jonathan Lethem, Junot Díaz, Sam Lipsyte and Jennifer Egan (her's also serialized in a Twitter experiment), and a series of short essays from Ray Bradbury, Ursula K. Le Guin, Margaret Atwood, William Gibson and more on their own introductions to science fiction — all topped off with a cover illustration by Daniel Clowes (of *Ghost World* fame). As is the norm with *The New Yorker*, though, you'll need a subscription (or a single issue pass) to read all of the pieces online.



# REVIEW

## CONTENTS

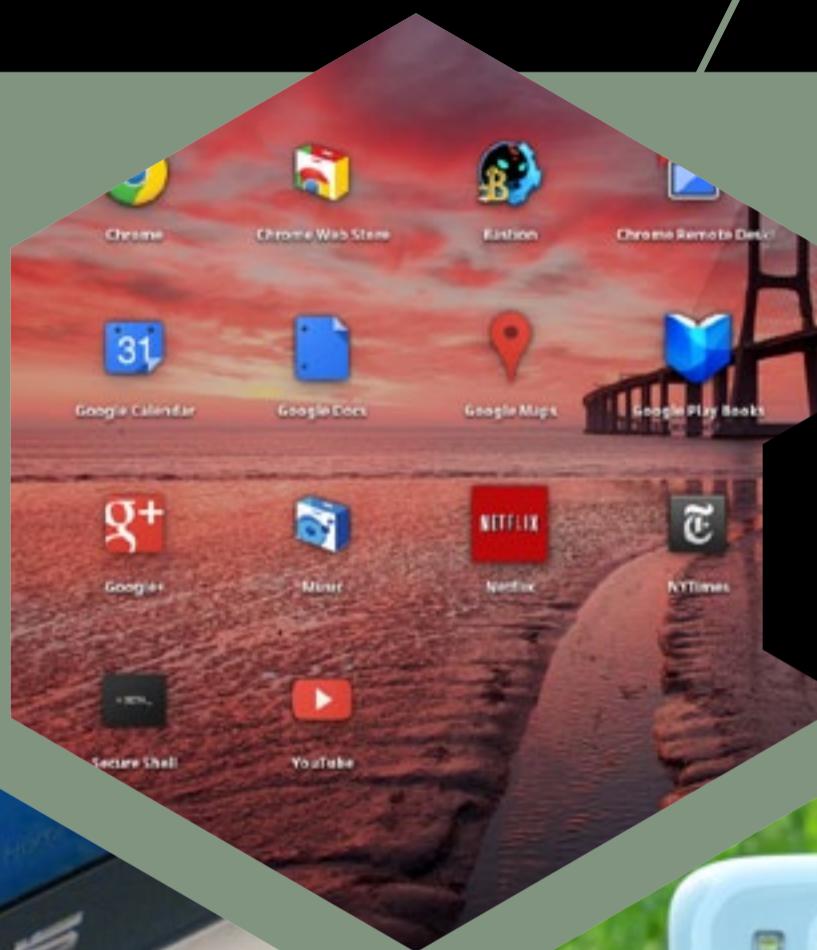
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06.01.12



ASUS  
Zenbook  
Prime  
UX21A



Samsung  
Galaxy S  
III



Chrome OS



## CHROME OS (VERSION 19)



Does Google's latest Chrome OS (Version 19) update hit the final mark or is it still just a work in progress?  
By Dana Wollman

**It seems like yesterday that we** reviewed the inaugural Samsung Series 5 Chromebook running Google's Chrome OS, an operating system for laptops based on Chrome. It was, from the start, a world in which everything from music playback to document creation happened in browser tabs. Since we last checked in a year ago, Google has addressed some early complaints — the browser can actually stream Netflix now! — but it's only just getting around to ticking off some other long-standing grievances, like multitasking.



The company just announced two new Chrome OS devices — the Samsung Chromebook Series 5 550 and Chromebot Series 3 — and both run a spanking-new build of the OS that ushers in a simplified desktop with customizable wallpaper and the ability to minimize, maximize and close windows — oh my! More importantly, you can now view multiple windows onscreen, edit docs offline and pin shortcuts to the bottom of the screen — a combination that promises some seriously improved multitasking. Other goodies: built-in Google Music, Google+ and Hangouts, along with a basic photo editor, redesigned music player and enhanced remote desktop app. So does all this add up to an upgrade meaty enough to make the skeptics give Chrome OS a second look? Could it be time for you to get the low-tech person in your life a Chromebook? Let's see.

## A DESKTOP... SORT OF

Until today, it's been tough for even Chromebook sympathizers to defend Chrome OS' status as a bona fide operating system. After all, in its earliest incarnation it was little more than the Chrome browser itself, gussied up with a media player and a fledgling app store. Now in its nineteenth version, though, it's finally getting a desktop, making it look and function a little more like a traditional OS. When you sign in for the first time, you'll see an expanse of wallpaper, with a row of apps pinned

to the bottom of the screen — not unlike the Taskbar in Windows 7. By default, you can see that tray of shortcuts even when you have a window open, but when you maximize it (more on that in a moment) the window takes up the whole screen, obscuring the row of apps at the bottom. If you like, though, you can go into the settings and set any given app to always be on top (or, if you prefer, always hidden).

The Chrome team has also borrowed a bit from Android: in addition to pinned apps, that tray is home to an app launcher, which looks exactly like the one used on Google's mobile products. Click it and whatever windows you have open will minimize, with a grid of large icons taking up the whole screen. You can click on these, naturally, or use the arrow keys if you want to give the trackpad a rest.

To each his own, of course, but we'd much rather open apps this way than by scanning around for a bookmark in the browser. Time savings aside, the new design simply feels more intuitive: though everything from email to photo editing still takes place in the browser, just knowing there's something behind that window makes the experience feel a little more familiar.

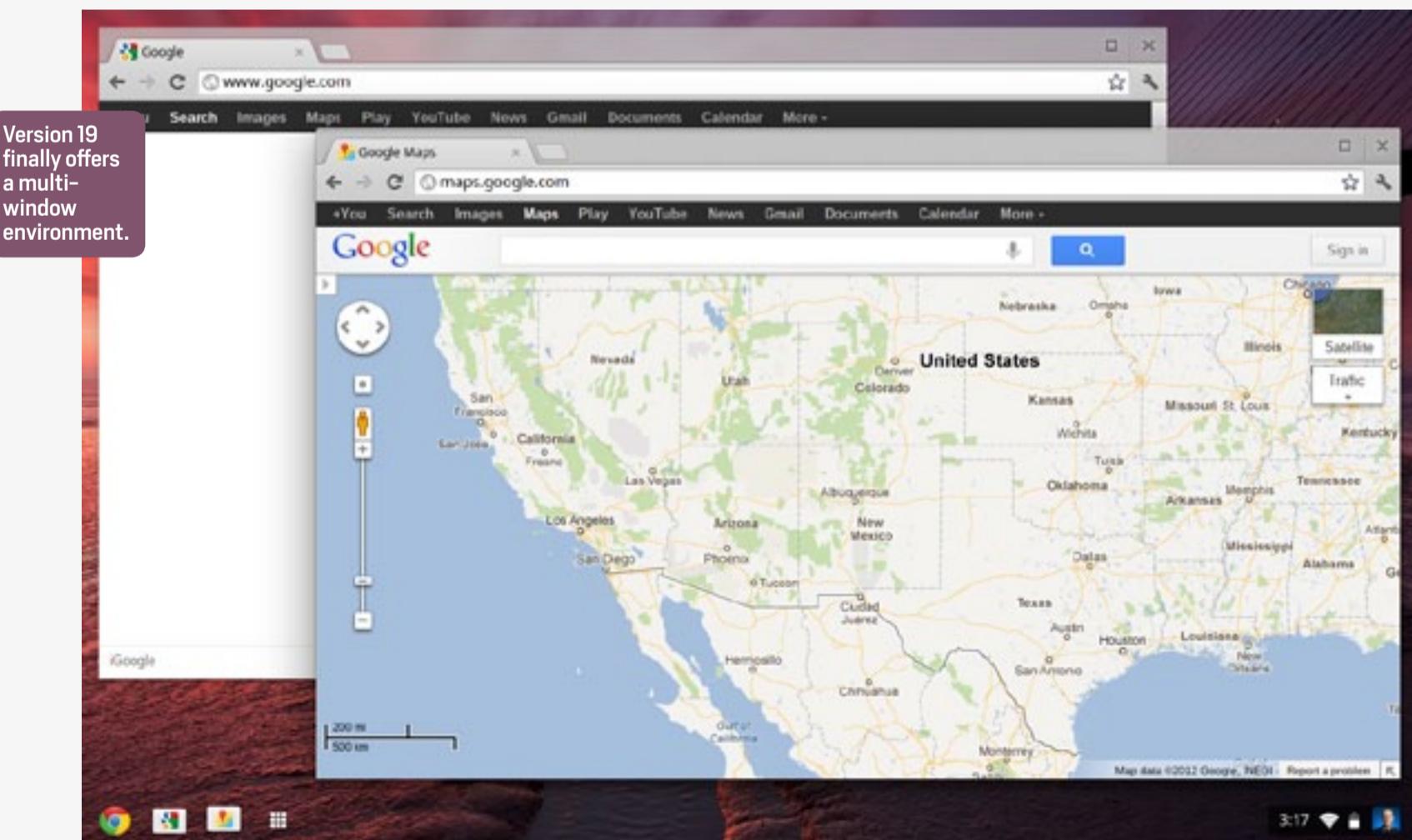
So that's the first piece, this space that resembles a traditional desktop. What *really* makes this feel like a conventional OS, though, are the windows: you can now minimize, maximize or close them! Exciting, right? And, if



you're feeling really frisky, you can pull a window and snap it into place so that it takes up half the screen — again, similar to what you can do in Windows 7. You can also resize the windows and pepper the screen with as many as you can fit. Okay, okay, we're making good use of sarcastic italics, but we do have a point: we take such things for granted to the point where it might not have occurred to naysayers that just being able to minimize a window could make an operating system more user-friendly. And it really does. Minimizing windows or even having two on screen at once allows for far more efficient multitasking than earlier versions of the software.

And yet, this doesn't *feel* quite like a desktop: for every feature that Google has added, there are two more that re-

main unavailable. Although you can change the wallpaper, for instance, there are no Android-style widgets, and you also can't populate that space with shortcuts to things like webpages or documents in progress. Ditto for that row of apps at the bottom of the screen: though you can use it to launch apps, you can't jump straight to frequently visited web pages or a playlist in Google Music. When you click the Chrome icon, it opens up a new tab, instead of bringing you to the one you were looking at last, which makes multitasking feel a little more tedious than it should. There doesn't appear to be a way to change this, though you *can* change how Chrome behaves when the machine starts up: it can pick up where you left off, open specific sites or just start fresh.



## OFFLINE APPS

When Chromebooks debuted last year, one of the most common complaints was that they'd be useless without an internet connection. "How am I supposed to check my email on a plane without WiFi?" people would ask. "What about accessing Google Docs in a dead zone?" Even a year ago, Google was promising offline access, and eventually it arrived — albeit, in a crude sort of form. Since last summer, users have been able to read (but not edit) their Google Calendars and Docs even when they've lost their internet connection. We're still holding out for anytime calendar editing, but as of today, people can at least edit their docs offline.

First, though, let's take a step back and talk about what kinds of offline apps are available, and how to discover them. To make them easier to find, Google's added an offline category under the "Collections" tab in the Web App Store, though searching with the keyword "offline" should do the trick too. That's how we found Offline Google Mail. To set up Offline Google Docs, though, we had to open Docs in the browser and enable offline access in the settings. Other apps available in the Web Store: a Wikipedia reader, dictionary and solitaire, among lots and lots of other third-party offerings.

The problem, though, is that offline Mail and Docs are only as useful as the content you remembered to sync while you still had an internet connection.

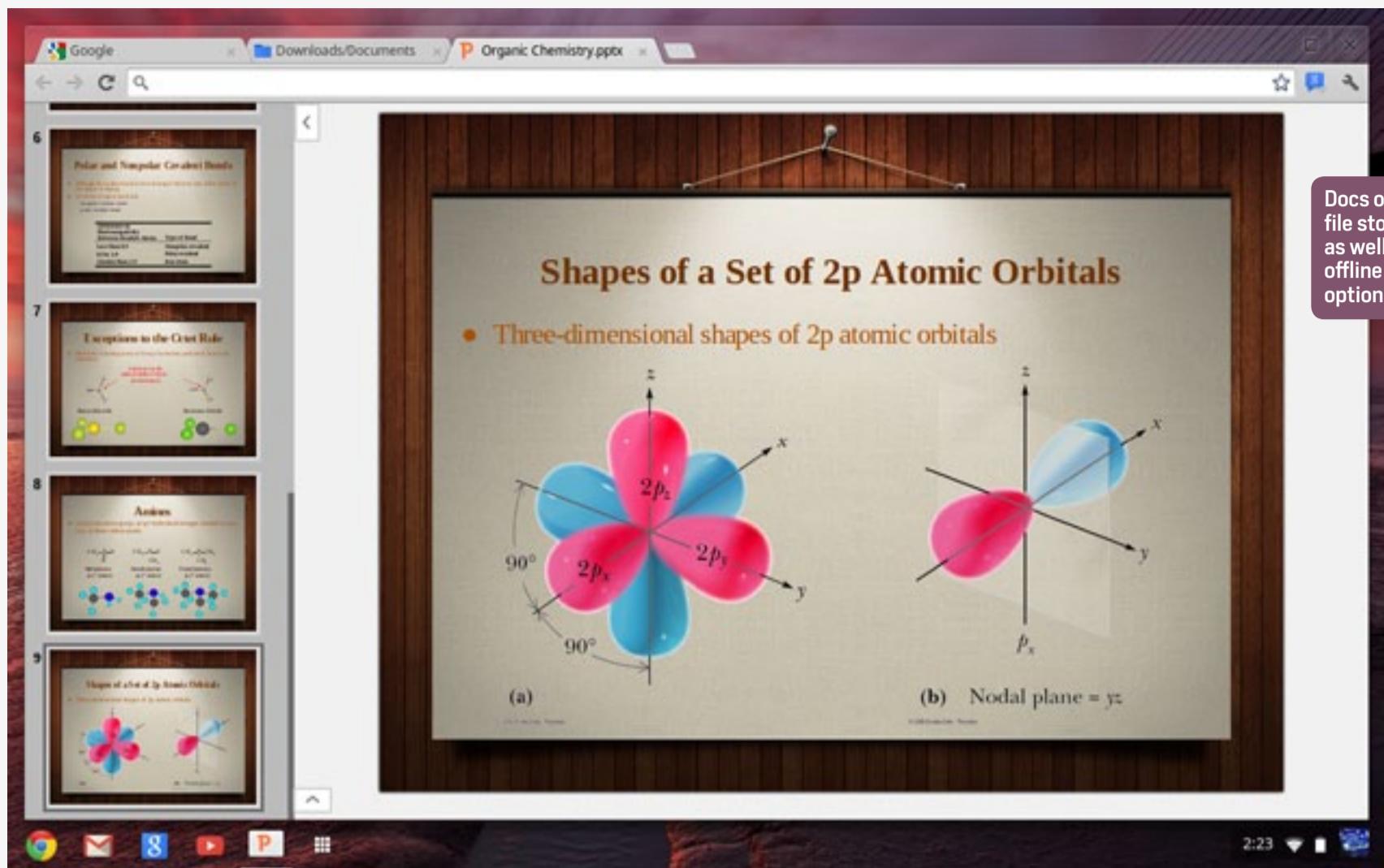
You know how if you're out of range, your smartphone will download a limited number of emails and tweets, making it impossible to search your entire inbox or scroll infinitely backward in your Twitter feed? It's the same limitation here: that list of emails hardly goes on forever, and you can only search what's there. Even if you took the time to let it sync before you went off the grid, you can only download emails from within the past month (the settings menu also lets you narrow that list down to messages from the last

For every feature that Google has added, there are two more that remain unavailable.

week or two). In essence, then, you're still out of luck if you want to find that TPS report you submitted last January.

If it's any comfort, though, company reps say Google Drive integration is coming in the next release, due about six weeks from now. Of course, we haven't yet gotten an early hands-on peek at this feature, but we're told Drive will be baked into the File Manager, specifically. From there, you'll be able to save or copy files into Drive, as well as open Drive files on your Chrome device. Another tidbit: Google has given us a heads-up that users will need to "pin" files they want to make





available offline. In other words, don't expect everything you backed up to automagically appear in your Chromebook's File Manager.

## MUSIC AND VIDEO PLAYBACK

One of the early complaints about Chrome OS was that it couldn't even support Netflix streaming. Though Google fixed that last summer, it's only now adding support for 1080p YouTube videos. We say better late than never: we found the streaming to be quite smooth, whether we watched a professionally done animated short or some amateur home video. We also had an easy time gobbling up clips on Vimeo and Hulu, and you can also view movies from Google Play, if you're so inclined.

It was at the annual I/O conference last year that Google unveiled both Chromebooks and Google Music, so we can see why the company chose not to integrate those two brand-new pieces of software from the get-go: after all, it would be another six months until Music even made it out of beta. Now that another six months have passed, though, Google was clearly ready for the service to be a built-in part of Chrome OS. And by "built-in," we mean Music is one of several shortcuts that come pre-loaded in the app launcher. If you've ever played with Google Music, the interface should look familiar. And, as ever, you'll need an internet connection to use it. Though Chrome OS' built-in media player lets you play music stored

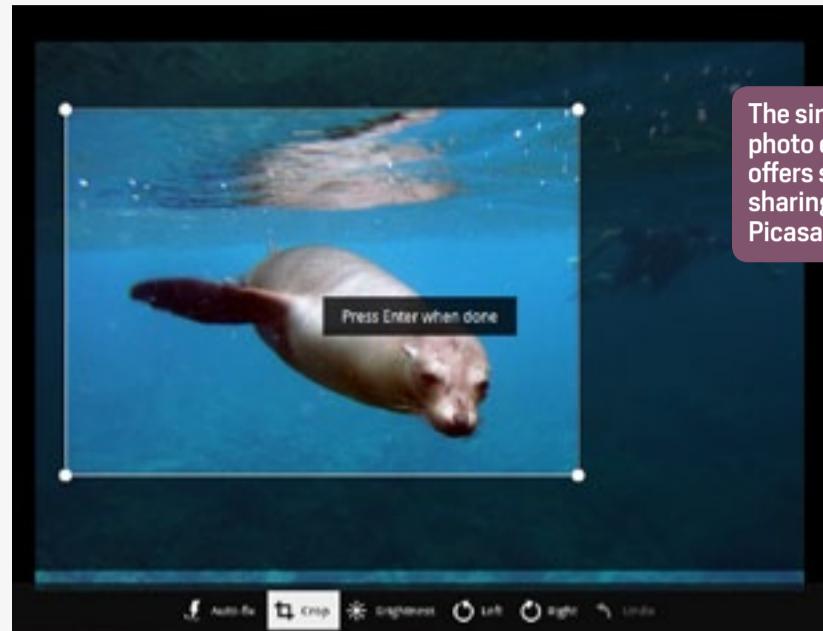


on an SD card, there's no such thing as offline Google Music. Luckily, a Google rep confirmed the company's working on letting users pin specific songs so they can listen anytime.

Tying it all together is a redesigned media player, which, as always, you can park in the lower-right corner and set to stay visible as you chat, read emails, et cetera. While it's cleaner-looking, it's still lacking any advanced features: no looping, for instance, and no shuffling of tracks. Additionally, the list of supported file formats has expanded to include support for all Office files (doc, xls, ppt, docx, xlsx, pptx), rar, tar, tar.gz (.tgz), and .tar.bz2 (.tbz2). As it is, the built-in media player could already open .zip, .txt, .html, .mp4, .m4v, .m4a, .mp3, .ogv, .ogm, .ogg, .oga, .webm and .wav files, along with PDFs and "common image formats" (read: .jpg, .gif and .png).

## PHOTO EDITING

Another common complaint about Chrome OS is that it isn't so great for creating visual content — and frankly, it still isn't. It would seem, though, that Google is at least taking baby steps in the right direction. New with this version of the operating system is a photo editor, with options to auto-enhance, crop and rotate shots, as well as adjust the brightness and contrast. It would've been nice if Google could have just folded some of those neat Picnik filters into the photo editor, but we can see where that wouldn't be at the top of the engi-



neering team's priority list. Hopefully, more advanced tools like that will indeed arrive in some future build.

As you're editing, be sure to click the link that says "keep original"; the OS doesn't automatically save the untouched version (Google says it expects most users will want to overwrite the original if they're only making small touch-ups). When you're done, you can upload to Picasa and get a link to pass around to your friends. The ability to send edited photos to the likes of Facebook and Twitter would be nice too, but again, baby steps.

## BOOKS

Not new, but worth repeating: you can go to the Web Store and install Google Play Books so that you can read e-books offline. Continuing that offline theme permeating this review, it's possible to download a book so that you can read it even when you lose your internet connection. To do this, hover over a book's thumbnail in the Play Store and check the box that says "Make available off-



[« Back](#) Treasure Island – Robert Louis Stevenson

Play Books  
allows offline  
reading and  
basic text  
adjustment.

## CHAPTER I.

### THE OLD SEA DOG AT THE "ADMIRAL BENBOW."

SQUIRE TRELLAWNEY, Dr. Livesey, and the rest of these gentlemen having asked me to write down the whole particulars about Treasure Island, from the beginning to the end, keeping nothing back but the bearings of the island, and that only because there is still treasure not yet lifted, I take up my pen in the year of grace 17—, and go back to the time when my father kept the "Admiral Benbow" inn, and the brown old seaman, with the sabre cut, first took up his lodging under our roof.

I remember him as if it were yesterday, as he came plodding to the inn door, his sea-chest following behind him in a hand-barrow; a tall, strong, heavy, nut-brown man; his tarry pigtail falling over the shoulders of his soiled blue coat; his hands ragged and scarred, with black, broken nails; and the sabre cut

across one cheek, a dirty, livid white, looking round the cove and whistling did so, and then breaking out in that he sang so often afterwards :—

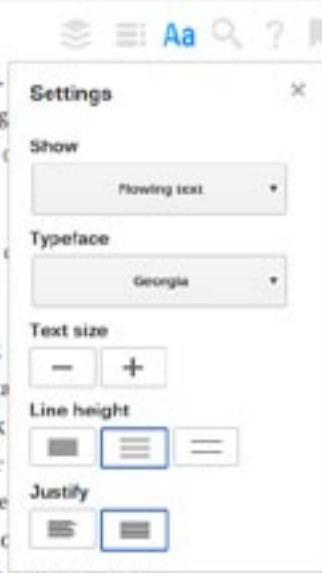
"Fifteen men on the dead man'sYo-ho-ho, and a bottle of rum!"

in the high, old tottering voice that been tuned and broken at the caps strapped on the door with a bit of stick that he carried, and when my father roughly for a glass of rum. This, whe to him, he drank slowly, like a conn on the taste, and still looking about him at the carts and up at our signboard.

"This is a handy cove," says he, at length; "and a pleasant sittiyated grog-shop. Much company, mate?"

My father told him no, very little company, the more was the pity.

"Well, then," said he, "this is the berth for me. Here you, matey," he cried to the man who trundled the



2-4 / 206

line." Obviously, we can't vouch for your internet connection, however poky it may be, but over a reliably strong WiFi network we were able to download "Pride and Prejudice," a 448-page book, in under a minute. Once you've gotten that over with, it's the same Google Books interface you already know, with a search feature, table of contents and the ability to adjust the typeface and font size. Naturally, if you close out of the app to do something else, Google Books will remember where you left off.

## GOOGLE+ INTEGRATION

The first time we tested a Chromebook, Google+ wasn't even an official product yet. Less than a year later, it's taking its predictable place in Chrome OS, with

separate apps for the social network, as well as Hangouts, the video chat service. Interestingly, Hangouts is one of the rare instances in which opening an application will cause Chrome to launch a new window — not a new tab, but a new window. Google+ looks exactly as it would in any other browser, so we'll spare you the recap. Starting a video chat, meanwhile, is idiot-proof: there's one field for naming your Hangout, and another for searching for names of people to invite. Whether you normally use the service or not, it's a nice improvement over the state of affairs a year ago, when the only option was a video call inside GChat. Want Skype? Sorry, folks, but surely you know a few people with Google accounts, yeah?



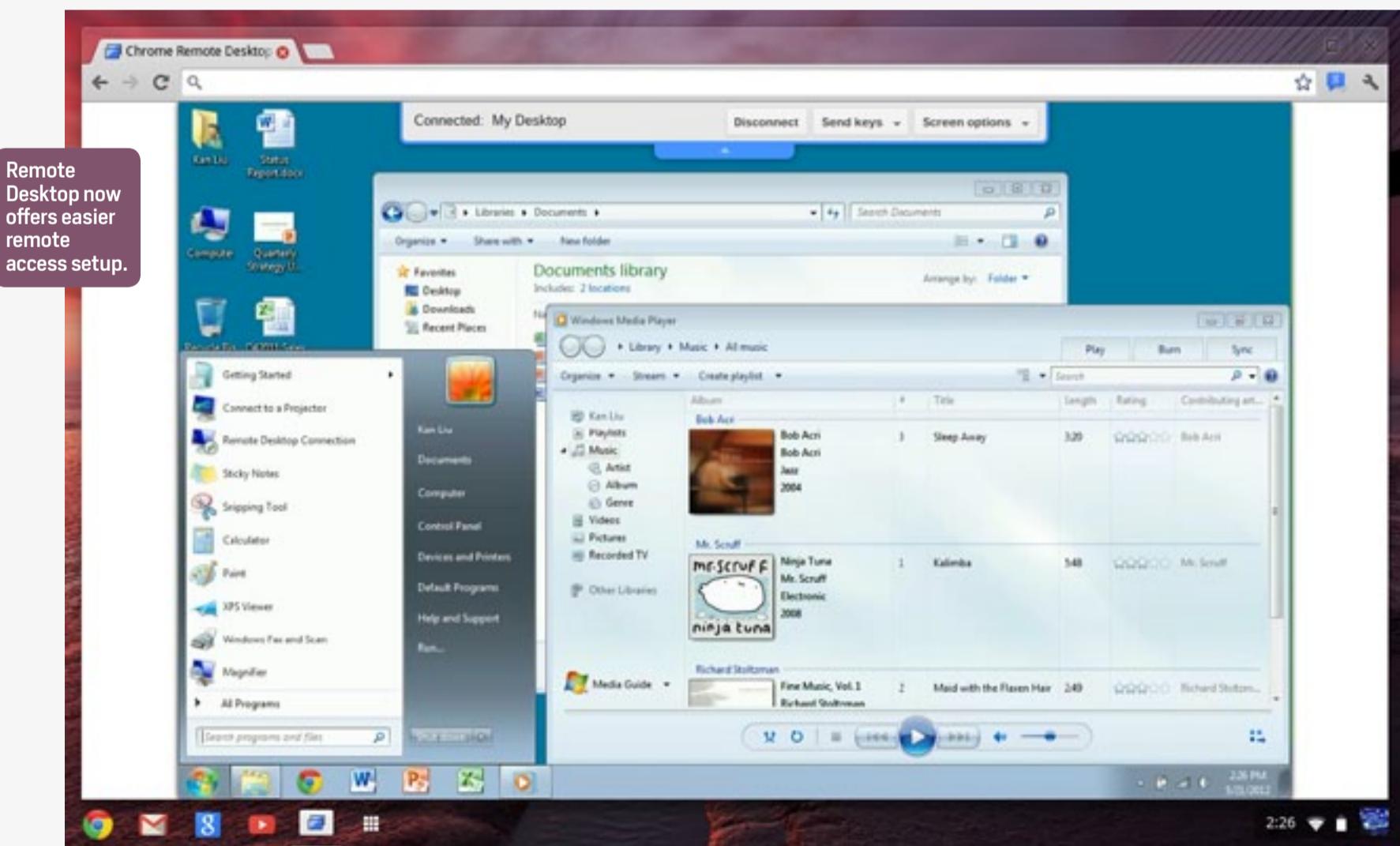
## CHROME REMOTE DESKTOP

Chrome Remote desktop, introduced as a beta last October, is what it sounds like: an app that lets you access other devices, and also share your screen with others. Like other Google apps, you'll find it in the Chrome Web Store. Regardless of whether you're using a Chromebook, Mac, PC or Linux machine, you'll have to download it from the Chrome Web Store.

Until now, the setup process was a clumsy affair, requiring Remote Desktop to be installed on both devices and for the person sharing his or her desktop to generate a 12-digit code and pass that on to whoever wants to access the machine. Because this password changed every time you did a screen-share, you needed someone else

on the other end, giving permission to share their computer and then passing along the code. Once you carried out that little authentication dance, you could expect a fast connection with little latency between the two machines. In particular, you could access Skype, FaceTime and Colloquy — apps that wouldn't normally be available on Chrome OS — though taking control of a friend's PC or Mac to borrow his applications isn't exactly a realistic scenario. If anything, the technology was useful for troubleshooting, which you might well need to do if you gift your Chromebook to the low-tech person in your life with simple needs.

Now, you can use your Chrome OS device (or any PC running Chrome, re-



ally) to access one of your own computers remotely, without help from someone else. For now, at least, the host computer has to be running Windows Vista or higher or Mac OS X 10.6 or above (sorry, Linux users). To get started, you'll need to follow a few one-time steps: go to the Chrome Web Store on both your Chrome OS device and host machine, and make sure you've installed the latest version

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## SAMSUNG CHROMEBOOK SERIES 5 550

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## SAMSUNG CHROMEBOX SERIES 3

\$329



### BOTTOMLINE

This particular Chrome OS laptop may have all the latest software updates, but it also has disappointing battery life and feels slightly overpriced given the limitations of what it can do.

### BOTTOMLINE

While on-the-go types might gravitate toward the Chromebook, techies looking for a cheap mini-desktop will find the Chromebox an extremely hackable little box.

of Remote Desktop as a Chrome browser app. Then, you'll be prompted to download a host installer to enable remote controllers. Finally, choose an access PIN for that particular machine.

Once you've done all this, you'll be able to see your other computers on your Chrome OS device; it doesn't matter if they're not in the same room or on the same WiFi network, so long as that host machine is turned on. And all you'll have to do to log in is enter that PIN you configured during the setup process; no more randomized 12-digit codes here. The beauty in all this, of course, is that you can now reach into whatever PC you left at home, and see files you don't have stored online, or on your Chrome OS device.

## CHROME WEB STORE

If you've used the Web Store recently, there's nothing to see here: Google hasn't changed the user interface at all this go-round. A company rep did give us an update on the selection, though, and told us there are now "tens of thousands" of Chrome-optimized applications available, including "hundreds" of offline options. For those who've managed to avoid the Web Store up until this point, here's a quick primer: on the home page, you'll be greeted by a bottomless list of apps, each represented by tiles of various sizes. Since you could stumble across every application in the store if you scrolled down persistently



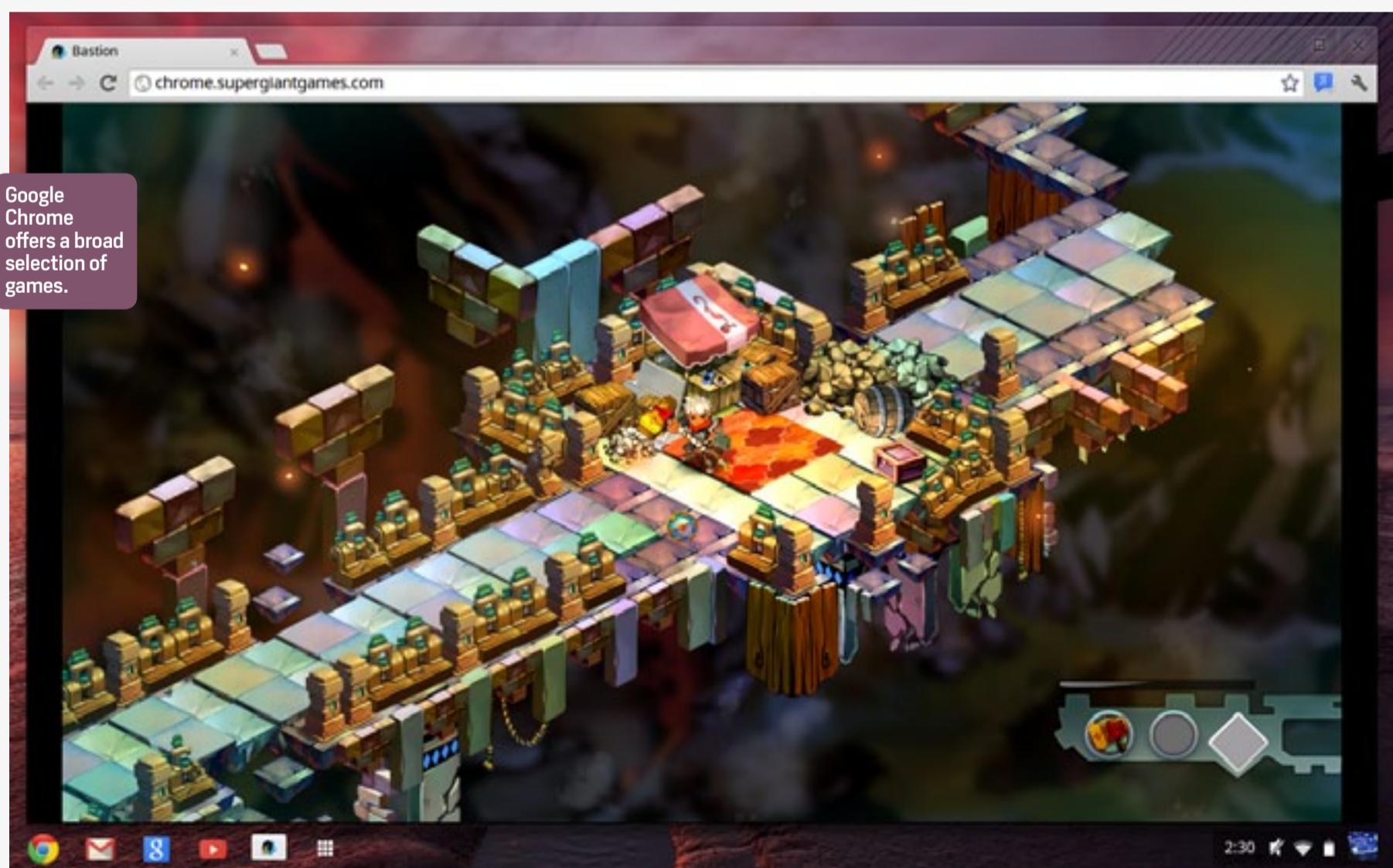
enough, you're better off selecting from one of the categories listed along the left-hand side (think: business, productivity, etc.). In that same pane, you'll find a link to see just the apps you've installed, along with categories for popular and trending. Here, too, is where you'll find those so-called collections, which are listed separately from the various categories of apps.

## PERFORMANCE

When it comes to day-to-day web browsing, not once did we encounter Google's equivalent of a Fail Whale, those cheerful "Aw, snap!" and "He's Dead, Jim" screens. No sites caused Chrome to crash, and we had a smooth

time juggling tasks in different tabs. We also found the dual-core Celeron processor inside both the new Chromebook and Chromebox were enough to assist with speedy boot-ups and app launches.

Not all was well, though: two Engadget staffers testing the Chromebook and Box noticed that the two machines can be sluggish in reconnecting to known WiFi and 3G networks after resuming from sleep. On the multimedia front, we noticed a good deal of tiling when watching an .mp4 movie. Finally, our own Myriam Joire, who reviewed the Chromebox, found that after putting the computer to sleep, she was logged out of Google Apps accounts,



# You can now reach into whatever PC you left at home, and see files you don't have stored online.

as well as Facebook and Tweetdeck — and this is despite checking “keep me logged in” on these various sites and giving Chrome permission to remember these passwords. A Google rep told us the engineering team is aware of that particular kink and is working on a fix.

## ETC.

One new feature that's worth noting but that's neither here nor there is the ability to sync tabs between your Chrome OS system and your Android device — assuming it, too, is running the Chrome browser. Moving on to security, there haven't been any major changes this time around. You can still set your device so that a password is required when the system wakes from sleep. There's also sandboxing, TPM, data encryption and verified boot, among other protocols aimed at businesses and schools planning on issuing these in bulk. Wrapping up, you can still print things through WiFi-enabled printers that make use of the Google Cloud Print standard. It's worth mentioning,

though, that a year later this standard has become far more ubiquitous, and it's a lot easier to find a compatible printer than it was even a year ago.

## WRAP-UP

When we reviewed the first Chromebook a year ago, we concluded that Chrome OS isn't for everybody. If you need certain desktops apps like Photoshop even when you're on the go, you're never going to appreciate what Google's trying to do here; there will always be some hole in your workflow that keeps you crawling back toward your PC. By design, Chrome OS is at its best when the user has always-on connectivity, which means for the foreseeable future, at least, it's destined to remain something of a niche concept.

The good news is that Google's taken a half-baked, experimental product and done an admirable job of fleshing it out. After spending a few days testing the software, we can confidently say that multitasking is a lot easier when you can view multiple windows onscreen at once, and when you have shortcuts pinned to the bottom of the screen, below the browser. It's also hugely helpful to be able to edit documents offline instead of just view them. Ditto for being able to read books offline, or use Hangouts for video chat instead of the calling feature built into GChat. And it could be even better: it would be nice to add short-



cuts to docs, books and other things to the desktop, which currently amounts to a lot of blank, unusable space. More sophisticated photo editing tools would be welcome, and we'd love to be able to share photos to sites other than Picasa.

Even without these things, version 19 marks a welcome update for existing Chrome OS users, and should suffice for the classrooms that are already issuing Chrome devices to students. Heck, it might even be time for curious early adopters to give Chrome OS a second look. But as Google starts selling more Chrome devices in retail, we have a harder time believing many consumers will be ready to put up with these limitations, especially as tablet apps grow

more sophisticated, and as we start to see Transformer-like Win8 devices with touch-friendly apps and physical keyboards. Even Ultrabooks are starting to come down in price, and offer some of the features that have made Chrome OS devices appealing, such as fast resume times. Given how many affordable portable devices there are to choose from, Chrome OS might have the best shot at catching on if companies like Samsung would relax the price of their wares. D

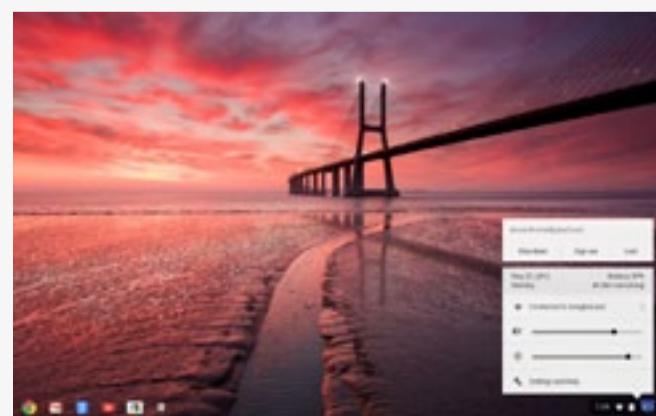
*Myriam Joire contributed to this review.*

*Dana Wollman is Reviews Editor at Engadget, a marathoner, lover of puns and a native Brooklynite.*

## BOTTOMLINE

### GOOGLE CHROME OS [VERSION 19]

\$ N/A



#### PROS

- Improved multitasking
- New photo editor
- Offline doc editing with support for Office files

#### CONS

- "Desktop" is missing shortcuts, widgets
- Uploads edited photos directly to Picasa, but not other sites

#### BOTTOMLINE

The latest version of Chrome OS is more pleasant to use, with improved multitasking features, offline doc editing and a built-in photo editor. It should be a welcome update for existing users and schools issuing Chrome devices to students.



## ASUS ZENBOOK PRIME UX21A



**It may not be ready for prime time yet, but the Zenbook Prime UX21A is already a big leap forward.**  
**By Dana Wollman**

**It was only a matter of time** before ASUS refreshed its line of Ultrabooks with Intel's new Ivy Bridge chips, but the truth is, the company needed to improve a little more than just the CPU model number. If you recall, the Zenbook UX31 ushered in a modern metal design and unbeatable speed, but our enthusiasm waned after spending a week with the flat keyboard and temperamental touchpad.

Well, friends, it looks like Chairman Jonney Shih and co. were listening: the outfit is about to bring four of its leaked Zenbook Prime laptops to



the US. These include the 11-inch UX21A, which you see in our lead image, along with the 13-inch UX31A, UX32A and the UX32VD — essentially, the UX31A with discrete graphics. Though different configurations are bound to vary, they all bring retooled, backlit keyboards, refined trackpads and, of course, Intel's third-generation Core processors. And while the lower-end UX32A is stuck with 1366 x 768 resolution, every other model — yes, even the tiny UX21A — will be offered with a 1080p IPS display.

In general, ASUS isn't ready to talk availability for these four models, and has not given any indication as to how

much the UX21A will cost (it did reveal tentative prices for the other three). So these aren't shipping products you can buy just yet, but luckily for us, we got the chance to spend a few days with the UX21A. While we're holding off on calling this a review — we need a price and final, production-quality unit for that — we're good and ready to share our early thoughts.

## LOOK AND FEEL

Looking at the UX21A, it's obvious that ASUS was reluctant to change the design: it altered only the things customers had been complaining

ASUS kept the spun-metal look from earlier models.



# It's obvious that ASUS was reluctant to change the design: it altered only the things customers had been complaining about.

about, which is to say the keyboard deck has gotten a substantial makeover. But otherwise, it's the same aesthetic. And why not? The spun metal lid was striking enough the first time, as was the all-metal chassis, pinch-thin silhouette and smooth, closed-door bottom. If you're an obsessive like some of us, you might notice the spun pattern seems finer, and that the edges feel slightly softer. ASUS also removed the tacky script branding that we took issue with on the original. Those tweaks minor enough for you?

At 2.4 pounds and 9mm thick at its plumpest, the UX21A is light: on par with other 11-inch laptops, including the MacBook Air. As you'd expect, it's easy to hold in one hand, and even easier to slip into a shoulder bag, but working with it on your legs can take practice. Mostly, that's because the weight distribution is lopsided enough that the dense, metal-backed lid causes the whole machine to tilt back precariously (read our IRL column and you'll see some 11-inch Air owners have the same beef). In any case, it's easy enough to avoid this by making sure

not to tilt the screen too far away from you, which shouldn't be a problem, given that versatile IPS display and all.

As ever, this kind of skinniness comes at a cost: the UX21A only makes room for a handful of ports, including two USB 3.0 sockets, a headphone jack, mini-VGA and micro-HDMI. That's right, there's still no SD reader on this little guy; you'll have to step up to one of the two 13-inch models for that. Other than that, there aren't any differences between the two sizes.

Wrapping up our tour, the lot have sealed bottoms, which means the battery, memory slots and SSDs aren't user-replaceable. Each has 802.11a/b/g/n WiFi along with Bluetooth 2.1 + EDR. You'll also get support for both Bluetooth 4.0, as well as 10/100Mbps Ethernet, so long as you supply an external cable. Finally, this thing's got Intel Wireless Display on board for streaming 1080p video to a high-def monitor or TV.

## ETC.

You didn't think ASUS would have a change of heart when it came to accessories, did you? As with the first-gen Zenbooks, the company's throwing in a sleeve (this time in a muted brown), along with mini-VGA-to-VGA and USB-to-Ethernet adapters. You're on your own for full-sized HDMI. As for the power adapter, it's a small, boxy affair with a thin, non-removable cord on one end, and an outlet connector that can be detached — not unlike Apple's power bricks.



## KEYBOARD AND TRACKPAD

If our review of the original Zenbook boiled down to “It’s great, but...” that potential deal-breaker could have been the lifeless keyboard, flaky trackpad or both, depending on how sensitive you are to such things. ASUS clearly took these criticisms to heart, if this specimen we have before us is any indication. With this generation, the outfit’s traded those flat, metal keys for something cushier, with deeper pitch and a little more bounce — a 12 percent boost in travel, says ASUS.

It’s a classic case of function over form, really: while the black, plastic keys don’t look as futuristic as the ones they replace, they’re worlds more comfortable to type on — even on the 11-inch model, which naturally makes do with less deck space than the 13-incher. Ultimately, yours truly wrote the brunt of this preview on the Prime, with only a few instances of keys not registering presses. We only wish it were such smooth sailing for people who took a chance on the original models.

Another complaint ASUS heeded was the lack of keyboard backlighting on the first Zenbooks. This go-

round, there’s a white glow emanating from beneath the keys. Unlike, say, Samsung’s Series 9, which is hard-wired to shut down the backlight in bright-enough environments, you can turn these lights on or off whenever you want. You can’t manually adjust the level of brightness, but, then again, there’s already an ambient light sensor doing those calculations for you. There are two function keys dedicated to enabling or disabling the backlighting, and while you’re poking around that top row, you’ll also find volume, brightness and mute controls, among others. If you’re curious, these functions are all secondary, meaning you’ll need to press the “Fn” button to make use of them.

And though we haven’t yet had a chance to test a final, production-grade version, it would seem that ASUS managed not to repeat the mistakes it made



# We only wish it were such smooth sailing for people who took a chance on the original.

with the first gen's touchpad. This time around, navigation is reliable and precise — not once did the cursor jump to random parts of the screen as we were typing. It also responds impeccably to multitouch gestures, with smooth two-finger scrolls and some of the most controlled pinch-to-zoom we've ever experienced on a Windows PC. To wit, this is one carefully machined clickpad; the button is quiet and easy to press, without feeling too stiff or gummy.

## DISPLAY AND SOUND

So you pressed "Ctrl-F" looking for "1366 x 768" and turned up nothing. (Except that little bit there.) Now what are you going to complain about? Not the display, anyway. As it was, the 13-inch Zenbook UX31 was remarkable for offering 1600 x 900 resolution, but now ASUS is upping the ante, moving to a 1080p pixel count on both its 11- and 13-inch models. What's

more, this isn't just your garden-variety TN panel, but an IPS display offering 350-nit brightness, 72 percent color gamut and 170-degree viewing angles

No surprise here: 1080p is plenty dense on an 11-inch display, and we actually found ourselves zooming in on pages packed with text. What really spoiled us, though, is the quality of the screen. It's just saturated and glossy enough that it brings out the best in movies, but you might still mistake it for a matte display at first glance; there's that little glare to put up with. The viewing angles are wide, as promised, and images hold up well whether you watch from the side or with the screen dipped at an acute angle.

Something ASUS didn't need to fix? The speakers. Even its first-generation Ultrabooks offered alarmingly loud, robust sound, thanks to a

ASUS increased the Zenbook's resolution to 1080p.



slamming Bang & Olufsen setup. Those speakers live on here (albeit, with minor tweaks), and so does the superior sound quality.

## PERFORMANCE AND BATTERY LIFE

Since Intel hasn't announced the remainder of its Ivy Bridge CPUs, ASUS isn't yet discussing the clock speed or model number of the processors it's used. (We could tell you ourselves, but we'd be breaching a confidentiality agreement. Sorry, Charlies.) What we can share is that this particular UX21A runs off a Core i7 Ivy Bridge processor, paired with 4GB of RAM and a 256GB

SanDisk 6Gbps SSD (128GB drives will also be available). Oh, and cheer up, folks, because while we can't disclose the exact CPU just yet, we were allowed to benchmark the snot out of our test machine. As you can see in the table below, it steamrolls most Ultrabooks and just about matches the last-gen UX31. Interestingly, the UX21A notches a clear lead in the graphics department, which lends credence to rumblings we've heard about Intel's newest integrated solution offering a nice boost over the ol' HD 3000.

In everyday use, too, it aims to please: our test unit routinely booted in about 18 seconds and resumed

LAPTOP	PCMARK VANTAGE	3DMARK06
<b>ASUS ZENBOOK UX21A</b>	10,333	4,550
<b>DELL XPS 13 (1.6GHZ CORE I5-2467M, INTEL HD GRAPHICS 3000)</b>	N/A	4,130
<b>HP FOLIO 13 (1.6GHZ CORE I5-2467M, INTEL HD GRAPHICS 3000)</b>	6,701	3,387
<b>TOSHIBA PORTEGE Z835 (1.4GHZ CORE I3-2367M, INTEL HD GRAPHICS 3000)</b>	5,894	3,601
<b>LENOVO IDEAPAD U300S (1.8GHZ CORE I7-2677M, INTEL HD GRAPHICS 3000)</b>	9,939	3,651
<b>ASUS ZENBOOK UX31 (1.7GHZ CORE I5-2557M, INTEL HD GRAPHICS 3000)</b>	10,508	4,209
<b>ACER ASPIRE S3 (1.6GHZ CORE I5-2467M, INTEL HD GRAPHICS 3000)</b>	5,367	3,221
<b>13-INCH, 2011 MACBOOK AIR (1.7GHZ CORE I5-2557M, INTEL HD GRAPHICS 3000)</b>	9,484	4,223
<b>2011 SAMSUNG SERIES 9 (1.7GHZ CORE I5-2537M, INTEL HD GRAPHICS 3000)</b>	7,582	2,240



from sleep in less than two. In the disk benchmark ATTO, its read speeds peaked at 486 MB/s while its writes maxed out at 356 MB/s. That's not quite as fast as the SATA III inside the UX31, but it easily tops the SSDs inside most of the Ultrabooks we've reviewed.

The 11-inch UX21A we tested has a 35Wh (4,800 mAh) battery, while the two 13-inch models make room for a 50Wh (6,840mAh) cell. Unsurprisingly, then, it doesn't come close to matching some of the larger, more longevous models we've tested. All told, it lasted

four hours and 19 minutes in our battery rundown test, which consists of looping a movie off the local disk with WiFi on and the brightness fixed at 65 percent. According to ASUS' engineering team, the UX21A is capable of around five and a half hours with more mixed usage, and up to six and a half hours using ASUS' specialty power saving mode (more on that in the software section). ASUS also claims that you can expect up to two weeks of endurance in standby mode — a claim we naturally did not have time to test.

LAPTOP	BATTERY LIFE
ASUS ZENBOOK UX21A	4:19
15-INCH SAMSUNG SERIES 9 (2012)	7:29
HP FOLIO 13	6:08
TOSHIBA PORTEGE Z835	5:49
ASUS ZENBOOK UX31	5:41
13-INCH, 2011 MACBOOK AIR	5:32 (MAC OS X) / 4:12 (WINDOWS)
HP ENVY 14 SPECTRE	5:30
LENOVO IDEAPAD U300S	5:08
14-INCH SAMSUNG SERIES 5 ULTRABOOK	5:06
Dell XPS 13	4:58
Samsung Series 9 (2011)	4:20
Acer Aspire S3	4:11

## SOFTWARE

This is one area where we'd especially prefer to test the kinds of production-level models consumers can expect to find on shelves. For now, though, the laptops issued to tech journalists writing early previews were largely scrubbed of third-party software, save for McAfee Internet Security. Otherwise, you'll find a raft of ASUS-branded utilities, including AI Recovery, FaceLogon, Instant Connect, LifeFrame3, Live Update, Power4Gear Hybrid, PWR Option, Secure Delete, Splendid Video Enhancement Technology, Tutor, USB Charger Plus, Virtual Touch and WebStorage Sync Agent.

As we mentioned briefly, these Zenbooks come loaded with some ASUS-approved power management profiles, which co-exist with the stock options offered on every Win 7 machine. The Power4Gear suite includes four modes



in total: Entertainment, High Performance, Battery Saving and Quiet Office. We encourage you to play with these as you're getting settled, but you should know that whenever you unplug the machine, it will default to the Power4Gear Battery Saving mode unless you manually switch to the profile you want. Likewise, when we started up the machine after our battery test completed, it had reverted to one of these specialty profiles, as opposed to balanced mode, which we were using before the battery gave out.

## CONFIGURATION OPTIONS

Okay, Ultrabooks are never the most configurable laptops out there, but even here, you've got options. Though we tested a tricked-out UX21A with a Core i7 CPU, 256GB drive and 1080p display, you can save some pennies by going with a Core i5 processor and 128GB SSD instead. Meanwhile, the UX31A will be offered with the same processors, solid-state drives and screen resolutions, but you can also get it with a Sandy Bridge Core i3 CPU

at the low end. There's also the lower-end UX32A, a 13-inch model with 1366 x 768 resolution and hybrid hard drives. Rounding out the bunch, the UX32VD is the same as the higher-end UX31A except for one crucial spec: instead of integrated graphics, it has an NVIDIA GeForce GT 620M GPU with 1GB of video memory. Now that we'd like to test!

## WRAP-UP

It would seem, even after spending just a few days with the UX21A, that ASUS has mended its Zenbook line in the areas where it was most lacking. This time around, the trackpad is cooperative while the keyboard is backlit and far easier to type on. Not that the last-gen 1600 x 900 display was a bad thing, but we're not inclined to complain about an upgrade to IPS and 1080p resolution either. All that said, though, it would be an understatement in the meantime to say we like what we see. D

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*Dana Wollman is Reviews Editor at Engadget, a marathoner, lover of puns and a native Brooklynite.*

ASUS' latest Zenbooks come in multiple flavors.



## SAMSUNG GALAXY S III



Can the much-hyped Galaxy S III live up to its name? Or is this galactic refresh just another superphone?

By Sharif Sakr

Receiving such a keenly anticipated phone to review inevitably leaves us feeling a bit strange. The hubbub of launch events, hands-on previews heated debates suddenly dies away, leaving you with one small and intensely silent cardboard box. In this instance, the packaging contained the “marble white” version of the Galaxy S III (not the more daring “pebble blue”) alongside one burning question: apart from all the hype, do this handset’s paper credentials translate into a product that is worthy of serious cash and a 24-month commitment?



Those credentials are certainly more subtle than those of other recent devices. There's no unusual camera, stand-out display or unibody build. Instead, we get an abstract design statement about the phone being "inspired by nature" alongside a list of incremental hardware improvements such as a quad-core processor, as well as fresh additions to Samsung's customized Android 4.0 skin. As it turns out, these specs forgo immediate swagger in favor of creating a solid workhorse of a smartphone that is intent on attracting a long-term following. Read on and you'll discover just how it pulls that off.

## HARDWARE

There's no point in skirting around the fact that the GS III can be deflating when you first look at it. That's partly because its rounded corners and glossy finish make the phone look more mainstream and less, well, *edgy* than the Galaxy S II, but also because the handset still bears so much physical affinity to its predecessors. The earpiece and speaker grilles, camera lenses, home button and other items of furniture are all in their familiar and predictable bolt-holes and there's nothing overwhelmingly new about any aspect of the design. HTC tried something different with the build of their new flagship, the One X, but on this occasion Samsung has voted conservative.

(Incidentally, if you begin to notice that this review mentions the One X a

heck of a lot, then you've already cottoned on to one of the major themes that will dog not only these paragraphs, but also the GS III's entire existence.)

In any case, once you get past that "oh, it's another Samsung" vibe, you realize that the GS III's design tradition is — in many respects — no bad thing. Minimal bulk with no frills is what Galaxy phones are all about, and seeing as this particular model lugs a 4.8-inch panel it's only right that Samsung's designers used all their old tricks to keep the weight and dimensions to a minimum. Thanks to the signature plastic build and paper-thin peel-off rear cover, the weight is kept to a respectable 135 grams (4.7 ounces) — yes, that's still 17 grams more than the GS II, but it's way less than a unibody handset like the Lumia 900, which weighs 160 grams while possessing a smaller display.

The GS III is also just 8.6mm (0.34 inches) thick, which is only marginally fatter than its predecessor and still well below the average smartphone belt buckle, despite the inclusion of a hefty 2,100mAh interchangeable battery. Speaking of interchangeable: in addition to the battery we also get a microSD slot, which means you won't have to pay over the odds for more storage. That adds up to a second (and increasingly rare) tick for the GS III — from the current pack of rivals, only the HTC EVO 4G LTE matches this spec, but that's still a niche device due to its limited radio.

Some buyers will still be put off by this handset's length and width, but at



136.6mm long and 70.6mm wide the GS III actually falls well inside the bell curve of other current big-screened flagships. It feels like a phone, not a phablet, and when you bear in mind what you get in return – a vast, amazing display, for example – the slightly XL dimensions feel like a bargain.

Overall, the build quality is hard to criticize. The plastic is extremely well put together, it doesn't flex or creak and the phone never feels fragile. The all-over continuous sheet of Gorilla Glass 2 on the front panel did a good (though not perfect) job of fending off car keys, while the glossy rear cover was equally impervious in its own way. What more could you want from a phone that's going to follow you around for years on end?

## DISPLAY

The GS III's display is a 4.8-inch window onto wondrousness and certainly a major selling point. It has all the contrast and deep blacks that we've come to love from AMOLED displays, but it's also bigger than average, with a healthy pixel density and — most importantly — much better color rendition than some older AMOLED screens. Six months of progress has led to real visual improvements since the Galaxy Nexus, even though the underlying screen technology is the same: colors aren't over-saturated and they don't have that unnatural blue-ish tint. In fact, the color temperature is very similar to that of the HTC One X, which uses more conventional LCD technology, and that's

a huge accomplishment for Samsung.

Although it doesn't sound like much, the extra screen size is noticeable and great to have. It's 0.1 inches bigger across the diagonal than the HTC One X, and 0.15 inches bigger than the Galaxy Nexus — which equates to a seven or eight percent difference in surface area. When it comes to watching videos, reading e-books or surfing websites, every fraction helps. In fact, if you *almost* made the leap to the jumbo Galaxy Note but couldn't quite convince yourself it was sensible, then the GS III could be the compromise you've been waiting for.



# The extra screen size helps to mitigate the effect of the PenTile technology that Samsung uses in its AMOLED phones.

The extra screen size also serves another useful purpose: it helps to mitigate the effect of the strange PenTile technology that Samsung uses in its AMOLED smartphones these days. For the benefit of those who haven't followed this controversy, here's a refresher: PenTile displays generally don't deliver the pixelation-free appearance that you'd rightfully expect when you purchase a smartphone with a stated resolution of 1280 x 720 and a pixel density of 306ppi.

In our Galaxy S III Preview [Issue 40] we compared the Galaxy S line of displays under a 230x microscopic zoom. We noticed how nice and neat the older GS II's red, green and blue sub-pixels were: laid out in tightly-bunched trios (i.e., an RGB layout). The newer GS III, however, is meant to have three times the resolution of its predecessor, but if you were to count up its sub-pixels you'd see that it has nothing like that numerical advantage. Its subpixels are awkwardly spaced out in a PenTile matrix, just like the first Galaxy S. When you zoom back out to a normal

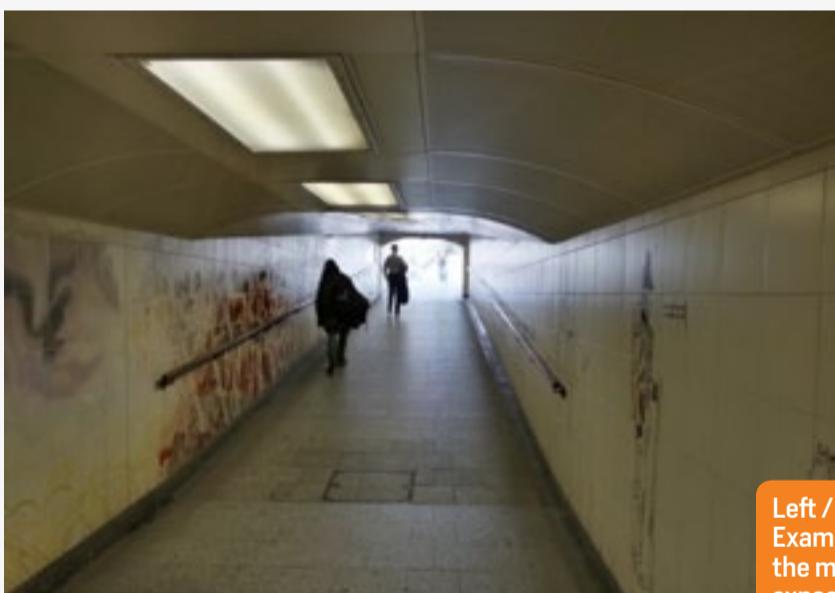
viewing distance, that arrangement of sub-pixels generally results in grainier or fuzzier images.

Should the world bang on Samsung's doors and demand a 300dpi letter of apology? Well, maybe, but not so much with the GS III, because it's largely rescued by its extra screen size. Having a 4.8-inch panel encourages you to hold the phone slightly further from your face, and even lengthening the distance from your eyeballs by a couple of inches can be enough to obscure the PenTile effect. Compared to the PenTile display on a Lumia 800 for example, which is both smaller and has a lower resolution, the GS III was infinitely nicer to look at, to the point where the word "PenTile" was totally forgotten after a couple of days of acclimatization. We'd only advise caution if you're an avid e-book consumer and you're *extremely* fussy about your text looking like it would on a printed page – in that case you may well prefer the HTC One X's Super LCD2 alternative. In the meantime, the world can save the door-banging for the GS IV.

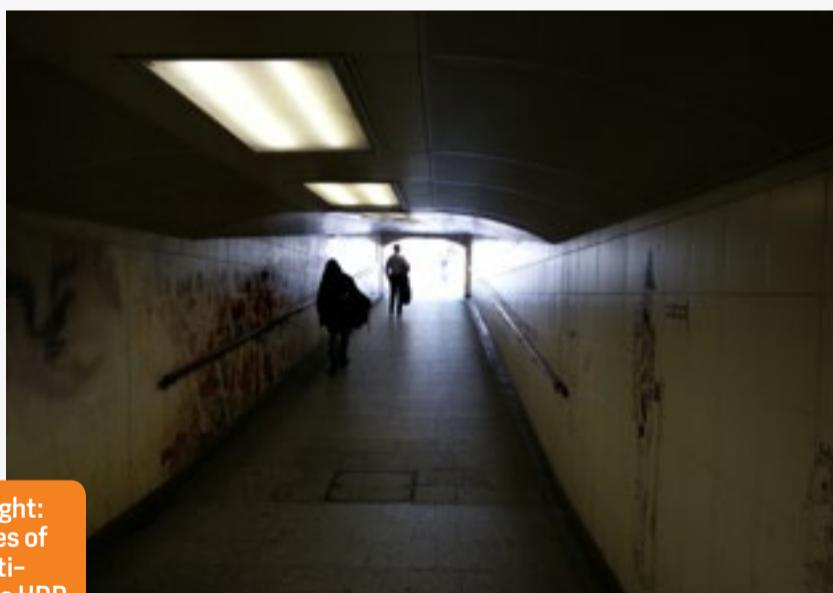
## CAMERA

Raw speed. That's what the GS III brings to the photographic table, and it's one of the most practical benefits of its powerful quad-core engine. We pulled off six frames per second with full 8-megapixel resolution by holding down the shutter button while in burst mode, which was slightly more





Left / Right:  
Examples of  
the multi-  
exposure HDR  
mode.



than the HTC One X and totally sufficient for getting a nice smile out of shy subjects. In Single Shot mode, there was virtually no shutter lag, which greatly assisted shots of moving targets: what you see when you tap the screen is exactly what will appear in your gallery afterwards. There is probably a slight delay, but it's so small that it's imperceptible – judging from a

non-scientific test, it's less than 0.1 seconds and shorter than the lag on the HTC One X. Overall, the speed and ease-of-use of this camera can change the way you shoot pictures – not simply by filling up your microSD card with more photos than usual, but by encouraging you to push for ever more interesting shots that wouldn't be possible on a regular laggy phone.



Of course, none of that would make sense without great image quality, and fortunately the GS III is up to scratch in that area too – even though it doesn't show a great deal of progress from earlier Galaxy phones. In many ways this is good: previous models delivered sharp and colorful images, while earlier iterations of the TouchWiz camera app also offered a high level of manual control, and those qualities have been carried over into the GS III. This includes the press-and-hold method of taking a photo, which allows you to set focus and exposure before re-framing and releasing the shutter to take a shot — a system that encourages more creative control and which is sorely lacking on the One X. It also includes the ability to set the compression level (Normal, Fine or Superfine).

With the lowest compression, still photos generally weigh between 2.7MB and 4.7MB, which means they contain precisely the amount of information we'd want from such a high resolution image — other phones are known to cap file-sizes at around 3MB, which hurts image quality.

The GS III also brings a multi-exposure HDR mode for bringing out more detail in highlights and shadows, and that works well. There's also a panorama mode for stitching together multiple shots to create one long horizon. Just like HDR, this mode is extremely fast thanks to the processor. It's quick and easy to pull off little creative tricks.

The only thing missing here is real optical development: the maximum aperture is f2.6, which is basically the same as its predecessors and well behind the light-loving f2.0 lens on the HTC One X. This means the GS III will generally be worse off in low-light situations, although we still found that it performed admirably, with minimal noise. Also, compared to the excellent camera in the iPhone 4 (not 4S), the GS III may over-expose slightly and show less dynamic range — its images are sharper and have more accurate colors, but at the expense of being less dramatic.

Moving on to video footage and it's clear that once again the snappy processor is living up to its rep: autofocus during video recording was some of the best we've seen in any smartphone. 1080p is recorded with a data-rate of around 2.2MB/s, which is very healthy indeed, and autoexposure shifts smoothly and sensibly. There's no slow-mo unfortunately, which counts against the GS III because that would have been a cool feature to have, but regular 1080p 30fps footage is smooth and largely free of the rolling shutter "jello" effect.

## PERFORMANCE AND BATTERY LIFE

So, we come to one of the GS III's not-so-secret weapons: its Exynos Quad processor, which is the only other engine beyond NVIDIA's Tegra 3 to bring more than two cores to a mainstream handset. If you need further evidence of just how



BENCHMARK	SAMSUNG GALAXY S III	AT&T GALAXY NOTE	MOTOROLA DROID RAZR	HTC ONE X (LTE)
QUADRANT	4,454	2,667	2,357	4,784
VELLAMO	1,751	554	1,021	2,259
ANTUTU	11,960	6,582	6,027	6,956
SUNSPIDER 0.9.1(MS)	1,460	3,059	2,140	1,453
GLBENCHMARK EGYPT OFFSCREEN (FPS)	99	33	28	56
CF-BENCH	13,110	6,063	6,191	9,479

bleeding-edge the new 1.4GHz quad-core Exynos is, you only need to look at its transistor size. Shrinking transistors is an expensive, painstaking business that only high-volume companies like Samsung can afford, but for the end user it broadly translates to a capacity for more performance with less battery drain — yes, that's both at the same time; one of the physical world's rare win-win situations. The GS III's silicon is fabricated with a 32-nanometer process, which is significantly smaller than last year's generation of 45nm phones and also smaller than Tegra 3's 40nm process. The only other mainstream mobile phone processors that benefit from such shrinkage are Intel's 32nm Medfield, which is put to good effect in the Lava Xolo for example, and Qualcomm's remarkable 28nm Snapdragon S4, which powers phones like the HTC One S and the LTE version of the HTC One X.

Okay, so what is this highfalutin Exynos chip capable of in real-world terms? Let's start with daily operation

first: this phone boots up from cold in under 25 seconds and never stalls, never lags and never trips over itself. Whether you're navigating picture-heavy PDFs in Polaris Office, playing back chunky 1080p clips shot on your DSLR, or simply surfing content-heavy websites, you'll never even think about the processor. The true power of this processor will only materialize as the software becomes available to exploit four-way multi-threading. In the meantime, the only way you're going to test this phone is if you get the chance to do crazy things like running tough augmented reality apps (something we'd like to do in the future, in order to test the graphical component of the Exynos), or a dual OS, or playing Skyrim, or if you run benchmarks.

Which brings us smoothly on to those (slightly) less subjective arbiters of performance. We've recently updated our suite of tests, so there are actually two sets of tables. The first, above, throws the GS III up



against recently-reviewed phones using our new benchmarks. (Note: all the numbers for other phones come after recent firmware updates, so they might be different to what we've published in earlier reviews.)

## On the whole you're looking at a device that is unsurpassed in terms of performance.

On the whole you're looking at a device that is unsurpassed in terms of performance. The GS III loses out to the One X on a few scores but beats it on others. It does particularly well on the SunSpider score, which reflects web-browsing performance: it's on a par with the One X here, and well beyond the latest Apple A5-based devices – for instance, the new iPad only scores 2,011ms. If we look at Tegra 3

devices, like the global version of HTC One X, which isn't listed in that table, we see a similar picture of the GS III winning on some and losing on a couple (namely CF-Bench and Quadrant). Overall, we'd have to call it a draw between the GS III and either variant of the HTC One X, at least on the basis of these specific tests.

Lastly, for the sake of comparison with a few older and cheaper devices, we've included above a legacy table with our previous suite of benchmarks. Although these benchmarks struggle to distinguish between the very latest phones — which is precisely why we've moved on from them — they nevertheless prove two things. Firstly, if processor grunt is a primary concern then you don't need to splash out on a GS III: you can do at least as well with the Snapdragon S4-fueled HTC One S, which is a significantly cheaper handset. Secondly, the Galaxy Nexus — much as we love it — is now very much last year's news in terms of horsepower.

BENCHMARK	SAMSUNG GALAXY S III	SAMSUNG GALAXY NEXUS	ASUS TRANSFORMER PRIME	HTC ONE S
LINKPACK SINGLE-THREAD (MFLOPS)	56.22	42.85	43.35	103.88
LINKPACK MULTI-THREAD (MFLOPS)	132.80	69.37	67.05	222.22
NENAMARK 1 (FPS)	60.0	53.03	60.07	60.8
NENAMARK 2 (FPS)	58.8	24.26	46.07	61.0



Ah, but wait a second. We can't move on without acknowledging that performance has a flip-side: battery drain. We had high hopes for the GS III in this regard, after we saw it had an unusually high-capacity 2,100mAh battery, and after *GSMArena* found in their own tests that the handset can go for almost as long as a tablet. Fortunately, we can corroborate those results. Hooked up to Vodafone's HSPA+ network in London, UK, the phone survived a full day of intensive use. That included running energy-sapping benchmarks, shooting stills and video, web-browsing over

WiFi and cellular data for over an hour, plus around 40 minutes of voice calls. (For the record, we had no problems with reception or audio quality, whether through the earpiece, speakerphone or the bundled canalphone headset — although the latter was too tinny to be taken seriously for music.)

In our looped video battery run-down test, the phone lasted somewhere between 8.5 hours and 9.5 hours. This is a great result given the phone's screen size and resolution, and the fact that it only has a very early firmware version. It's also basically the same as the nine hours achieved by the AT&T HTC One X — so

close that re-ran the looped video test and this time it yielded nine hours and two minutes. That's a brilliant score given the screen's size and resolution. Motorola's Droid RAZR Maxx might offer up more, but that phone is only qHD and its processor is relatively under-powered compared to the GS III's.



## SOFTWARE

The GS III is an Android (Version 4) phone, but it has a very heavy TouchWiz skin stuck on top of it.



This means that in addition to the typical Android-style clutter of widgets and menus and settings screens, the phone also has Samsung-only twists that add to a general sense of busyness. For fans of iOS (no widgets) or Windows Phone (no clutter), the whole thing might be a turn-off. Equally, if you're a devotee of the pure Android 4.0 user interface, which is more fluid and less busy than earlier versions, then you'll also be disappointed.

It's understandable that Samsung wants to make its own mark on Android and differentiate itself from the competition, but did it really need to mess with Android 4.0 so brutally in the process? When you look at how much effort Google puts into improving its open source OS, it's actually unforgiveable for Samsung to come along and give us a skin that makes it all feel like old-fashioned Android 2.3. The phone doesn't even follow the latest button conventions: it has 'back' and 'menu' capacitive buttons on either side of the physical home button, and thus omits the 'multi-tasking' button that came with the ICS. This means you have to press and hold the main home button for a second or so (honestly, it feels like an eternity), just to move between the apps that you're running. It's backwards and it's wrong.

But that's enough of the rage. Not everyone feels so strongly about the UI, and perhaps many will like TouchWiz if it makes them feel at home. More importantly though, many of Samsung's functional additions are genuinely use-

ful. Here's a list of the main features that came in handy, in descending order from good to less good:

**50GB OF FREE DROPBOX STORAGE.** *So good.* This storage boost was triggered when we first signed into the pre-loaded Dropbox app, and it suddenly made it feasible to automatically stream our photos to the cloud. Happy days.

**SWIPIING CONTACTS TO CALL OR MESSAGE THEM.** The simplest ideas are often the best. Swiping contacts left to send them a message or right to ring them became second nature after a while, because it's a lot faster than navigating sequential screens and tapping buttons. In fact, Samsung should have made even more use of swiping gestures, for example home screen and multi-tasking navigation like on the iPad — the screen size is easily big enough to handle it.

**SMART STAY.** The screen refuses to timeout when you're looking at it, based on face recognition via the front-facing camera. There's nothing worse than a screen that switches off just as you're starting to make sense of the content it's showing you, and this feature nips that problem in the bud.

**SOCIAL TAG.** When you first take a photo of someone, the phone asks you to name them. From then on, it does all the hard work of recognizing that per-



son again in future snaps, and linking up their social networking profiles so that you can share your photos faster. This should also make it really easy to catalog a gallery, or search it for pictures of a particular person, but we didn't spot a way to do that.

**FACE UNLOCK.** This is a stock feature from pure Android 4, but fortunately Samsung has carried it over to TouchWiz. It works great and it's the easily the fastest method of unlocking the phone, even though it isn't the most secure – it also disables the ability to jump straight into a specific app from the lock screen, which often undoes some of its speed gains.

And here are some features that we just didn't get along with:

**S BEAM.** This could have been so powerful, but it instead represents the problem with Samsung's philosophy. They've taken two open-source standards, Android Beam and WiFi Direct, and transformed them into a proprietary wireless interface that is extremely fast, but which only works between two GS III handsets. Aside from the ethical implications, how often are you going to get a chance to use this feature?

**S VOICE.** This isn't as "human" as iPhone's Siri. It doesn't work as quickly or as intelligently, and it often cuts you off mid-sentence, thereby wasting time interpreting meaningless fragments of requests. With patience it can

At just  
8.6mm thin,  
the GS III still  
rocks a slim  
profile.



yield better results, but overall it's hard to imagine many people using it on a regular basis. Do that many people even use Siri?

## WRAP-UP

The best thing about the Galaxy S III? That it's more than the sum of its parts. Individually, the slightly larger and better display, stronger processor and faster camera may not sound that special, but in daily operation they score major combo points: gathering up all the best bits of the older Galaxy S II and re-working them into a solidly modern (read: mid-2012) device. The power-and storage-hungry Android user simply cannot go wrong with this purchase, and neither can those looking for a great camera.

The worst thing about the GS III? No matter how hard it tries, it just isn't greater than the sum of the HTC One X's parts. That's not to say it falls short, but

the times have changed since last year's Galaxy S II, which landed on an unsuspecting world that was largely devoid of predators. The Snapdragon variant of the One X has similar computing power, battery life and photographic credibility, but it also has a much better UI that sticks more closely to the guiding ethos of Android 4.0. The One X also has a more forward-looking physical design, while the GS III clings to the past. Perhaps the biggest sacrifice you'd make by going for the One X over the GS III is the loss of the cheap storage offered by the microSD card. That's a painful thing to give up, but given how deeply we feel about the need for Android to move forward and not get stuck in a Gingerbread-flavored groundhog day, we might just take the hit. ⚡

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*Sharif is a British tech journalist with ten years' experience filming and reporting news for the BBC and other broadcasters.*

## BOTTOMLINE

### SAMSUNG GALAXY S III

**£500**  
**(Unlocked)**



#### PROS

- Big and beautiful AMOLED display
- Powerful, future-ready processor
- MicroSD slot and long-lasting battery
- Class-leading camera

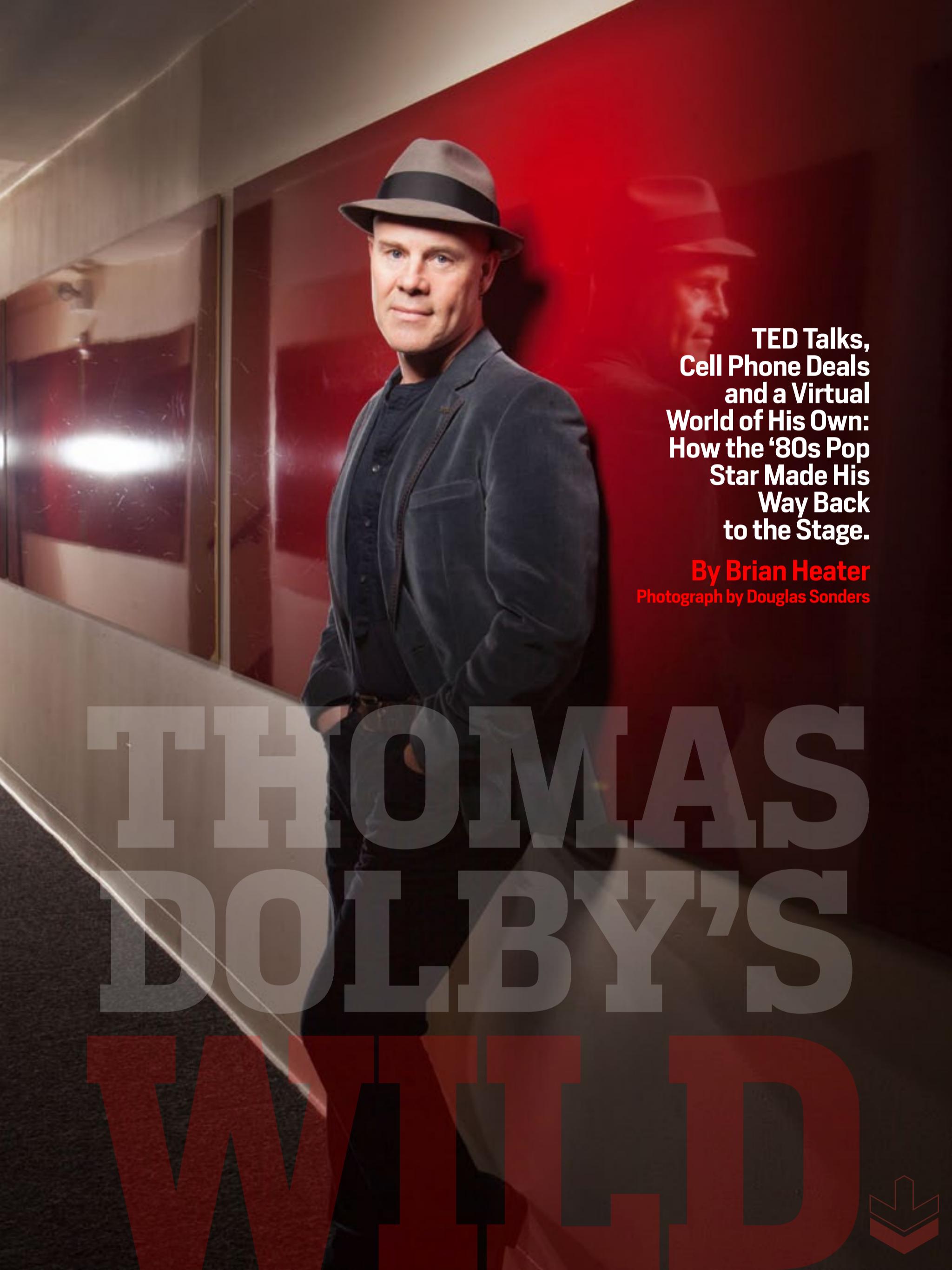
#### CONS

- TouchWiz interface feels tired
- Design is perhaps too safe

#### BOTTOMLINE

The GS III is an all-rounder of a superphone, but strong competition on the Android scene will stop it reaching the heights of its predecessor.





**TED Talks,  
Cell Phone Deals  
and a Virtual  
World of His Own:  
How the '80s Pop  
Star Made His  
Way Back  
to the Stage.**

**By Brian Heater**

**Photograph by Douglas Sonders**

# THOMAS DOLBY'S WORLD



# TRIBECA

**THE EXTERIOR OF THE CANAL ROOM** is a touch jarring in the harsh light of day. The street-level windows of the TriBeCa brick building are plastered with giant, neon posters advertising the venue's reoccurring theme nights — events with names like "Back to the Eighties Show featuring RUBIX KUBE: The Ultimate '80s Tribute Band" and "Saved By The '90s: A Party with The Bayside

Tigers." Checkerboard backgrounds and pictures of Screech abound. And for a moment, I'm worried for Thomas Dolby. It's hard not to entertain images of the singer being tortured with Teddy Ruxpins, forced to perform 30-year-old songs for a crowd of middle-aged showgoers squeezed into their prom dresses, in defiance of all laws of physics.

Things are much less troubling inside, however. The lights are dim and there's no neon to be seen — and while Dolby himself is MIA a few hours ahead of the show, a pair of dancers run around the space all steampunked out in corsets and high-heeled boots. One



spots our photographer and asks whether we're there to "shoot the belly dancer." It's an interaction I can't help but relate to Dolby when he finally arrives, off-handedly comparing the whole thing to a traveling circus of sorts. "Actually," he responds, "it's quite simple compared to some other show. There's no video here, only three musicians, so this is the simple version."

This is the scaled-back version of Dolby's live show in 2012. For one thing, the tour had to leave its chrome 1930s-era trailer back in Jersey. Apparently it's just too difficult to get a giant time capsule through the Holland Tunnel. In its absence, Dolby describes the vehicle as ap-

pearing to have been "modified by Jules Verne and Nikola Tesla," adding that it "houses a video suite, which allows anybody from the public to shoot a 30-second message to the future. So, we've got a YouTube channel called Time Capsule TV and people are uploading these messages that they shoot in the time capsule and the most popular ones, based on the views and so on, we'll sort of preserve for posterity, for the future."

The multimedia offering is something of a logical extension of "A Map of the Floating City," Dolby's first new album in roughly 20 years, and a concept born in a makeshift studio in the singer's backyard. "I started working on it about four years ago when I moved back to the UK from California," Dolby explains. "I got set up in the garden of my beach house in East Anglia with a 1930s lifeboat, which some local boat builders converted into a studio for me. And it runs on a wind turbine on the mast and solar panels on the roof. It's all renewable-energy-powered. And it's a very inspiring place to be. I've got a periscope on the roof and I watch the ships coming and going in the sea."

It's a nice picture, certainly, quiet and serene. A long way from the industry he fled decades before, when he "went away," as he puts it, a conscious effort on his part.

**"FOR EVERY ONE OF  
ME THERE WAS 19  
OTHER GUYS THAT  
NEVER MADE IT  
THROUGH THAT  
OBSTACLE COURSE  
AND PROBABLY  
GAVE UP AND GOT  
STRAIGHT JOBS  
BY THE TIME THEY  
WERE 25."**



Dolby's latest tour takes its name from the "Time Capsule," a 1930s trailer he describes as "modified by Jules Verne and Nikola Tesla."



## PATENTLY BIZARRE

Thomas Dolby translated his latest album, "A Map of the Floating City," into an online interactive adventure and community. Embracing the game and its concepts, the crafty denizens of Dolby's Floating City have repurposed in-game items into uber-nerdy creations. So many, in fact, that an official Patent Office was erected to manage these wild inventions. We've gathered a sampling of these oddities for your amusement.

### Apes help detect depth while dancing to the ocean floor funk.

**INVENTOR:**

Katzenjammy

**INVENTION:**

Low-Frequency Active Sonar Depthfinder

In an effort to develop more efficient seafloor depth sounding, Katzenjammy has proposed this sonar-based, Rube Goldberg-style device. Nightingales, laser modulation and disco balls provide tunes for a funky ape party-of-one; ape dance speed directly relates to seafloor proximity.

**ITEMS REQUIRED:**

Nightingale, apparatus, headphones, the Funk, laser, boots of concrete, metal bird, tubes and wires, ape in motion and a mirrorball.

"The beginning of the '90s was a bad time in the music industry," he tells me, painting the scene as a bit of a horror show, this whole "idea of a record company patting themselves on the back and saying, you know, 'We've got a budget of \$500,000 to break this artists,' and just throwing money at it at random. And then, by virtue of the fact that among all those labels there's only a total of 50 acts that the public will even get to hear to choose from, and some of those will sell millions and that sort of pays for all the mistakes that they make."

And really, in the grand scheme of things, Dolby didn't fare that badly, an artist who rode the major label rollercoaster and actually managed to make a name for himself in the process. "I was one of the lucky ones and I have them to thank now," he answers, humbly. "For the fact that I have a name now, that I can build on, so that's really great. But for every one of me there was 19 other guys that never made it through that obstacle course and probably gave up and got straight jobs by the time they were 25."

For someone who, for most intents and purposes, walked away from the industry that put him on the map, Dolby has managed to do a remarkable job avoiding the trappings of the straight world. In 1993, he founded Headspace, a diversion that would eventually turn into a 15-year venture. "It was a lot more fun to me to be making cool interactive music apps than struggling with the music industry which was sort of in recession," Dolby tells me. "But then, in the middle of the '90s, when the web came along, it was very easy to get venture capital funding for things and so, without much of a business plan, we were able to get funded to basically go in every day and make cool interactive music apps."

The company, later renamed Beatnik, developed RMF (Rich Music Format), a file type with a small footprint that brings synthesized sounds to a web page. Dolby explains it simply as being the audio equivalent to Adobe's Flash. It was enough to garner the attention of the world's biggest phone maker (at the time).



## A few quick quips to quell a cursed mermaid menace.

### INVENTOR:

Arignote

### INVENTION:

Cube Headed Android Mermaid Curse Neutralizer

Ocean travelers have long been troubled in this world by the mermaid curse, and Arignote has arrived at a way to aid them. An android figurehead mounted on a ship's prow offers a stream of (dubious) jokes to distract and confound the mermaid menace.

### ITEMS REQUIRED:

Flaming hair, android, cube head and jokes.

## Environmental control through chemical process and moth assistance.

### INVENTOR:

Captain Ultramundane

### INVENTION:

Acid Rain Abatement

Plagued by frequent acid rain and its environmental effects, Captain Ultramundane has developed a method to counteract its deleterious impact through a chemical process and the aid of specially trained moths.

### ITEMS REQUIRED:

A machine, fridge, white powder, shells, moths and tethers.

"Nokia were looking for a way to do ringtones in their phones and asked us if we could port it to their phones, so we sent engineers to Finland and got it running, just a simple version of the Beatnik synthesizer running on Nokia phones. That was in about '98 and then they licensed it and it's been on every Nokia phone since and most of their competitors. It's over three billion units at this point and at its peak, it was on two-thirds of the world's cellphones."

A year before the launch of Headspace, Dolby gave his first TED talk, demonstrating a piece of software he'd written. It was a relationship that would fully blossom a decade later, when he nominated himself for the role of the conference's music director. "There's been music at TED for a while, but it was never very ambitious," Dolby explains. "It's a very important thing to help people assimilate all of the ideas that they're hearing, because if you're there for five days it can be mental overload."

But while he never strayed too far from the periphery, it would be another decade before Dolby would make a full-on return to music and, not surprisingly, his first album in nearly 20 years would have to be more than just a collection of songs. "People aren't buying albums very much these days," Dolby explains, "but they are spending a lot of time playing games in their social networks and so on, so I needed to find another layer to it. You know, my hardcore following would probably be fine with any format that I released in, but in order to embrace a new audience and perhaps a younger audience who were maybe too young to remember me from the first time around, I needed to find something to dif-

**"I NEEDED TO FIND SOMETHING TO DIFFERENTIATE WHAT I WAS DOING ..."**



## A blueberry thrill followed by moth spitballs to the moon.

**INVENTOR:**

Lyra Crescendo

**INVENTION:**

Moth Expulsion Strategy

An epidemic of moths has lead Lyra Crescendo to propose a unique abatement solution. In a moth-dense area, give an ape a straw filled with a delicious blueberry shake and allow suction to pull in the moths with it. Disgusted by this "moth back" to his blue beverage, the ape spits the moths into the stratosphere. Repeat.

**ITEMS REQUIRED:**

Rubber tube, moths, ape in motion and a blueberry milkshake.

## A pithy ape and insect based security system.

**INVENTOR:** Ale
**INVENTION:**

The Lord of the Tiny Insects

Want to grab some R&R ashore and secure your vessel against invaders? Ale developed a service allowing you to leave your vessel in the safe hands of an able ape and a horde of angry insects. Donning a protective pith helmet and club, the LOTI stands guard with insects at the ready for long-range attacks.

**ITEMS REQUIRED:**

Club, big pith helmet, tiny insects and an ape in motion.

ferentiate what I was doing."

That something was "A Map of the Floating City" — an album and game, a dystopian tale of a land in which the Second World War played out very differently. "My favorite aspect of the game was that people came up with their own stuff," says Dolby. "User content was really fascinating. They started taking the items they were collecting and inventing new things by combining items they had into something new. And then people started filing patents and we had to create a patent office and I put my son on it, sort of eight-hours-a-day, actually considering all these patents we were granting."

Dolby himself made cameos as "The Aviator," a pilot whose Floating City location was at the center of the quest. "The Aviator crashed landed his seaplane on an island of detritus that was circling at the North Pole. There was no icecap left anymore, there was just this sort of circular floating island, and that's where I was forced to crash-land my seaplane. [Players'] role was to reach the North Pole from three different continents and converge on it and there, create the Floating City."

The online game was released ahead of the album. Its storyline and characters developed as something of a creator-made fan fiction, a concept that grew out of his fanbase's own overactive imagination. "They'd take on the names of characters in my songs and they'd sort of write their own scripts based on the places where I'd set my songs and using items in the songs," Dolby explains. "I thought it was great and I wanted to encourage more of it, so I thought if I came up with a game that was a framework for that to hang off it would encourage more people. So basically, we went through all of my lyrics and we put every item and every place and every name into a big database and we came up with this sort of trading metaphor and then there's sort of a backstory to it."

It all came to a head as a celebration in the titular Floating City, a virtual space Dolby describes as something of a cross between Burning Man and Freakonom-



ics, with the musician on the wheels of steel, spinning rough mixes from his forthcoming album of the same name. And when the long-awaited LP finally arrived, the Floating City closed its doors, a victim of its own success. "It had no revenue, so it was just a cost out of my pocket to keep it running," Dolby tells me. "So we had a sort of success / catastrophe." But while the game itself has become a virtual ghost town, the relationships developed amongst the melted ice caps of the Floating City have taken on lives of their own in the real world. "People have been turning up to the shows in character," Dolby says with a smile, "so there have been clusters of game players who have come and they meet beforehand in a bar and they trade stuff."

Roughly 20 minutes out from soundcheck, I've got to wonder who will file in through the Canal Room in a couple of hours. How many will arrive in steampunk goggles, ready to match the usernames of fellow Floating City inhabitants to real-world faces? And how many will walk past the wall of '80s nostalgia, waiting impatiently for

PHOTO: CARY BAKER

**"NOW THAT  
I'VE GOT  
SOME  
MOMENTUM  
GOING, I'D  
LIKE TO TAKE  
ADVANTAGE  
OF IT ..."**

Dolby and a pair of dancers, in full steampunk drag, pose before the show.





familiar radio songs from three decades prior? In spite, or maybe because of self-imposed exile, Dolby is still capable of bringing in a diverse crowd, many weaned on pop music well after “She Blinded Me With Science” had come and gone from the Top 40 airwaves.

Like so much of Dolby’s career over the past few decades, success here can be traced back to the use of technology not as a means to an end, but rather as an artform in and of itself. “Because of these new methods that we’ve taken to reach out to people — maybe it was the game that grabbed them or maybe it was the time capsule idea so they come down knowing only a couple of songs,” says Dolby.

And while he’s the first to admit that he’s not selling out stadiums, the tour has generated enough interest to ensure that he won’t be leaving another 20-year gap between records. “Now that I’ve got some momentum going, I’d like to take advantage of it,” says Dolby. “The old days, I used to always get distracted, because I would get to this point in a tour and somebody would offer me a film soundtrack or something. And in the middle of a tour that seemed like a good idea, so I would jump around from one thing to another and that was sort of frustrating for the label and the business people, because, you know, they always had to start from scratch every time. I’m a bit older and wiser now so maybe, you know, while I’m doing this one thing I’ll try to keep the momentum up.”

He’s got big plans for that momentum: multimedia shows and special guests — all possible when he can move things into a larger venue. Until then, things will have to remain a bit scaled down, the classic labcoat and goggle setup traded in for a more subdued gray fedora and the army of electronics left off the tour in favor of a Mac laptop and a piano. And sure, Dolby may not have the sort of AV spectacle he’d prefer, but there’s that belly dancer, floating around the venue upstairs and, of course, the disbanded tribes of the Floating City waiting for the show to begin. ▶



# FSC

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## ZENITH FLASH-MATIC



IN 1955, THE HONEYMOONERS hit the airwaves and TV dinners were on the rise. With a perfect sense of timing, Eugene Polley also gave us the first wireless remote control for the TV. Mr. Polley, the unsung hero of the couch potato, died on May 20th at the age of 96. We click pause and take a moment to honor the man and his invention.



# GRAND CENTRAL RYLAND



**He led development on BAROBO'S educational robot, now Graham Ryland tells us why he wants an "Ender's Game" smartphone.**

**What gadget do you depend on most?**  
My M6500 Workstation. It's a beast, but it lets me work at the coffee shop.

**Which do you look back upon most fondly?**  
The original RAZR flip phone. I really felt like I was living in the future every time I flipped it open with my thumb! Still chasing that high...

**Which company does the most to push the industry?**

I'm going to plug high school shop class and tech teachers here, if they don't continue inspiring young adults to be innovators then we're all up a creek.

**What is your operating system of choice?**  
Android and Windows 7 play nice together.

**What are your favorite gadget names?**  
Sphero, Cubelets, Roomba.

**What are your least favorite?**  
Anytime a large corporation tries to use slang or leetspeak in their branding.

**Which app do you depend on most?**  
Gmail and Google Maps.

**What traits do you most deplore in a smartphone?**  
I've missed the greatest photos of my 6-month-old waiting for my camera phone to boot... I wish I had a crittercam strapped to my head whenever I'm with her!

**Which do you most admire?**  
The 4.3-inch screen of my Droid X finally felt built to scale with my thumbs.



# “I wish I could dictate emails and messages using my thoughts without having to touch or speak at a screen.”

## **What is your idea of the perfect device?**

In the “Ender’s Game” series Ender has a smartphone called a “jewel” that fits in his ear, communicates non-verbally, has an AI program that controls every computer in the Universe, and is in love with him. That would be a cool device to have.

## **What is your earliest gadget memory?**

My Dad had an early computer / typewriter that let you edit one line at a time on a little screen. When you pushed Return a spherical head covered in letters shot across the page, spinning and flicking, to type each letter.

## **What technological advancement do you most admire?**

Any robot from Boston Dynamics!

## **Which do you most despise?**

Televisions in cars...

## **What fault are you most tolerant of in a gadget?**

That would probably be battery

life, I’ve always got my phone and laptop plugged in.

## **Which are you most intolerant of?**

Boot time of any device, app or program.

## **When has your smartphone been of the most help?**

Traveling, I hate being lost...

## **What device do you covet most?**

Silver 1948 Porsche 356 roadster with red interior.

## **If you could change one thing about your phone what would it be?**

I wish I could dictate emails and messages using my thoughts without having to touch or speak at a screen.

## **What does being connected mean to you?**

Someone who replies to your email within 24 hours is connected.

## **When are you least likely to reply to an email?**

When unconscious.

## **When did you last disconnect?**

I completely disconnected for two weeks for the birth of my daughter, it was a special time. 



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IRL

FROM Dana Wollman &gt;



Hide

**IN REAL LIFE** is an ongoing feature where we talk about the gadgets, apps and toys we're using in real life.



TO Tim Stevens &gt;



TO Darren Murph &gt;

## Samsung stories

Wednesday, May 16, 2012 9:50:31 AM

# SPARROW FOR IOS



Nikon D800



Nook Simple Touch with GlowLight

**FOR GMAIL USERS,** iOS' native Mail app just doesn't feel... right. Labels are a huge pain, and the visuals are far too drab compared to what avid users see on the browser side. And then came Sparrow for iOS. The app received near-universal acclaim on the desktop side, so I figured I'd shell out \$2.99 to be one of the early adopters; after all, *surely* it'd be worth that once push notifications came, right? As it turns out, the v1.2 update ushered in the awful news that push notifications actually weren't coming in the way that I was led to believe. In fact, the outfit's now working on some sort of "subscription" that'll allow push in a roundabout way, but it's unclear if my \$2.99 will cover it, or if I'll be hit with another fee.

I'll confess that I came to Sparrow from Android's native Gmail app, which is undoubtedly the best mobile Gmail experience on any platform. At first, I loved Sparrow. I didn't care about not having push; manually pulling for new items wasn't the end of the world. I loved

the gestures, I loved the stars and I loved the labels. I loved the "Send & Archive" option. But after a while, problems crept up. For one, the ability to swipe into each conversation in a Gmail thread doesn't work on all messages. It's totally sporadic, so far as I can tell. Moreover, deleting the final email in a thread only deletes that chunk; the prior messages remain. That's not the behavior I want; I want the whole thread gone. Or, at least give me the option to toggle between behaviors.

On the upside, I could store some 500 of my most recent messages locally (great for searching), which I can't do on the paltry Gmail for iOS app. I could also send a message through an alternate "From" account, so that's swell. After a fortnight, I've removed Sparrow and defaulted back to Gmail for iOS, simply because it still acts more like Gmail for Android than Sparrow does. Truthfully, I can't say it's worth the \$2.99, but I'll confess to missing the slick design (and the app icon in my dock). —*Darren Murph*



**IN REAL LIFE** is an ongoing feature where we talk about the gadgets, apps and toys we're using in real life.

## K NIKON D800

**MEGAPIXELS**, megapixels and more megapixels. That's really what the Nikon D800 is all about. Picking up this camera was just like picking up my old D700. Little has changed, ergonomically speaking — a few buttons have shifted around, but I nonetheless felt right at home immediately. What I didn't realize was the effect that this new flagship digital SLR would have on my everyday workflow. The amount of detail in every picture coming from the D800 is astonishing. The files that I get from this megapixel monster, even at 100 percent crops, look so crisp that I've been able to achieve perspectives I never thought possible.

Especially at full resolution, my photos tend to be a bit grainy at high ISOs, but when I apply a little noise reduction in post processing and downsize to around 12 to 16 megapixels for 8-by-10-inch prints, the noise performance easily trumps its predecessor. However, thanks

to these finely detailed files, I've recently needed to double my storage capacity for both my computer as well as my memory cards. I'm currently running around with 96GB in combined SDXC and CompactFlash cards in the D800, which nets about 1,500 uncompressed, 14-bit RAW files, and about 2,500 fine JPEGS — not the ratio I was expecting from over \$200's worth of memory cards.

The D800 isn't for the faint-hearted, and it's certainly not for everyone. In fact, some photographers might question why Nikon has dug itself into a niche market, instead of appealing to the masses and fine-tuning previous models like Canon did with its 5D Mark III. In any case, I say the D800 is more revolutionary than its competitors, as it's already accomplished two incredible feats: inching toward affordable medium-format camera resolutions, and making me look like a decent photographer. —Kevin Wong



Sparrow  
for iOS



Nook  
Simple  
Touch with  
GlowLight



**IN REAL LIFE** is an ongoing feature where we talk about the gadgets, apps and toys we're using in real life.

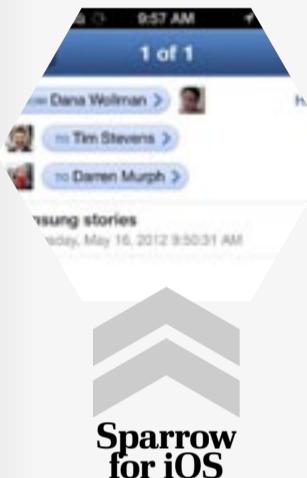
# NOOK SIMPLE TOUCH WITH GLOWLIGHT

I SUSPECT THAT the majority of e-readers are treated like paperbacks: tossed into backpacks and messenger bags and largely forgotten about until it's time to read again. I made that mistake with the original Nook Simple Touch, learning the hard way that dinging up an e-ink display can result in heartbreak. Once those little black splotches appear on the screen, they don't go away. So these days I leave the house prepared, with the new GlowLight Simple Touch enveloped in a fancy-pants Jack Spade case. It's nice looking — nicer than most of the things I own, sort of a beige-ish canvas, a black stamp of two pant legs on the front.

Inside, the Nook holds on for dear life to two hooks that slot into notches in the top and bottom of the reader's left side. It's a bit flimsy — not sure why Mr. Spade didn't just go for broke here and add hooks near all four corners. At \$50, I can't imagine it was a pricing concern here. That

said, I've only had one instance where the Nook actually popped out — and thankfully, it was in my bag when it did. The larger problem here — and I suspect it may be more of a design flaw with the reader itself — is the accidental light-up.

A number of times, I've opened up the reader to find that the terrific, patent-pending GlowLight had woken up inside the bag. In fact, I found myself with a dead battery long before the advertised "month of reading" was up. Thing is, like most e-readers, the Nook is designed to be in a perpetual sleep mode when not in use, but pressing down that "n" button will turn on the light — a problem that worsens when the reader is swaddled in its canvas cocoon. —*Brian Heater*



Nikon  
D800



# Cisco's Hard-Luck Hardware



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SWITCHED  
ON

BY ROSS RUBIN

**W**hen you think about companies that dominate specific technology markets, alongside names such as Apple, Microsoft, Facebook, Google and Intel, you no doubt include Cisco Systems. Founded in 1984, the networking giant earned \$43 billion of revenue in 2011. That placed it at No. 64 on the 2011 Fortune 500. Cisco has a current market value of about \$113 billion.

Acquisitions have largely spurred its growth over the years. Linksys, acquired in 2003, remains among the top-selling home networking brands, and Cisco recently moved to bolster its TV service provider business — formerly known as Scientific Atlanta — with the acquisition of NDS. But for all the success that Cisco has had building connections among network endpoints, the company has faced a tough road when it's come to selling devices directly to end-users over the last few years.

## MUSIC DIRECTOR MULTI-ROOM HOME AUDIO SYSTEM (2009)

With a purpose inspired by Sonos and an industrial design inspired by the

20th Anniversary Macintosh, Cisco introduced the awkwardly branded Linksys by Cisco Director. The device was part of a multi-room home audio system announced at the 2009 Consumer Electronics Show in a press conference that somehow managed to be largely about enterprise networking. Unlike Sonos, which uses an altered version of the WiFi standard to create a mesh network in a home, the Director and its companion components (including an LCD-based controller) used standard WiFi. The product was reviewed as difficult to set up, Cisco had little home audio credibility and failed to get deeper into acoustic design and mass merchants the way Sonos has.



**WHO MADE IT WORK?** Apart from companies focused nearly exclusively on the custom install market, most notably Russound, Sonos continues to own the DIY wireless multi-room audio business, although some see AirPlay as a possible threat.

## FLIP CAMCORDER

Cisco acquired Pure Digital, maker of the Flip digital camcorder, later in 2009. It was a contrast to Cisco's homegrown failures that tended to be expensive products launched into immature markets. The Flip, with its simple controls, integrated flash storage and pop-out USB connector, pioneered the "shoot and share" camcorder space, fended off Apple's addition of video to its iPod nano and experienced several scintillating holiday seasons. Millions of camcorders were sold over the years and its success even nurtured a third-party accessory market. Cisco's investment in the Flip brand and Pure Digital's mantra of minimalistic simplicity was inspiring a new line of Linksys routers dubbed Valet.

However, in 2011, on the eve of the division announcing a new line of WiFi-enabled camcorders that would have brought the strongest tie-in with its parent, Cisco suddenly shuttered the Flip group and laid off its hundreds of employees. Failed acquisitions of consumer products aren't unusual as HP showed with Palm. But Flip was going strong when Cisco flipped off the switch

**Flip was going strong when Cisco flipped off the switch in the name of returning to its focus.**

in the name of returning to its focus. The company claimed that the casual camcorder space was a dying business in the face of smartphones that could capture high-definition video, but the rise of smartphone video capture quality was already clear back when Cisco purchased Pure Digital. Regardless, other companies made offers to purchase the Flip business. Cisco refused to engage them.

**WHO MADE IT WORK?** Flip's exit from the market ceded leadership to rivals Sony and Kodak; the latter has announced that it is dropping out of the consumer imaging device market it pioneered over a century ago. Companies such as DXG attack the low end. The market for small flash camcorders has also expanded to include wide-angle POV action cameras from GoPro, Contour, Drift and others.

## UMI VIDEOCONFERENCING SYSTEM

In October 2010, Cisco unveiled Umi (pronounced you-me), a two-box, high-definition videoconferencing system that used HDTVs as displays. Cisco claimed that Umi was targeted at consumers as well as businesses. As with the multi-room home audio product, Cisco staked



out an emerging network-friendly device category. However, it publicly focused more on the idea of selling videoconferencing as a service through ISPs. And while the Umi, at \$600 for the 1080p version, cost a good deal less than decking out a home with Cisco's 2009 vintage audio gear, it was still a pricey proposition even before considering the ludicrous \$25-per-month service fee (eventually slashed to \$99 per year in a last-ditch effort). After the Flip shoe dropped, Umi's wasn't far behind and Cisco withdrew the product from the market at the end of 2011.

**WHO MADE IT WORK?** While video chat is taking off more on mobile platforms than on TVs, a number of inexpensive TV add-ons from startups such as tellyHD and Biscotti offer video chat for less than \$250 per TV with no service fee.

## CIUS TABLET

OK, that's enough of this small-time consumer stuff. Cisco seemed to embrace its inner enterprise focus with the 2010 debut of the Cius tablet, an unapologetically business-focused, 7-inch Android tablet that curiously used Intel's Atom processor. Once again, Cisco came in at a high price point — the Cius was generally available at \$1,000 or more. But the company recently announced that it would discontinue the product, making the Cius tablet the latest in Cisco's string of gadget gaffes. In fairness to Cisco, few Android tablet makers have gained much traction, with

even the Kindle Fire a flickering presence in the iPad's spotlight.

Cisco attributed the cause of death to the trend of consumers bringing their own devices into the workplace, but — like RIM's PlayBook — the Cius was designed to appeal to IT environments where that was presumably not an option or was discouraged. As the state of tablet management doesn't seem to have improved dramatically since 2010, either Cisco's target market was too small or the product simply wasn't attractive to it. Or, to paraphrase a recent tongue-in-cheek ad campaign for Jameson whiskey, maybe it was the price.

**WHO MADE IT WORK?** Amazon continues to have success with a 7-inch Android tablet and other companies, such as Samsung, Acer and Barnes & Noble, continue to sell such devices. RIM, which continues to see limited success with the 7-inch PlayBook that initially catered more to enterprises, has introduced more consumer-friendly features in version 2.0 of its OS.

Back when IBM sold its PC business to Lenovo, it acknowledged that building consumer devices simply wasn't one of its core competencies. There's certainly nothing inherently wrong with dabbling in new markets and, with the exception of the Flip flip-flop that had a negative impact on its financials, Cisco hasn't been much the worse for wear. But the company that put the "king" in "networking" has developed an uncanny knack for launching trial balloons that saunter into the middle of archery fields. ▶



The week that was, in 140 characters or less.

# Tim Cook, Facebook and the Future of the Phablet

@blam

if you are deserted on an island with founders, they'll be useless without engineers, funding and internet.  
I guess you could eat them.

@ryan

Phablets:  
the next  
netbook.

@mat

I bet Tim Cook has a kick ass fridge

@gaberivera

I wholeheartedly defend Tim Cook's determination to apply ChapStick midsession. Dry lips suck.  
#d10

@JoannaStern

Last night I got to ask the CEO of Apple a hard hitting question. Oh, but this morning? I'm writing about bras abcn.ws/M7IR3j #ATD10

@9to5mac

7 inch iPad?  
Cook: LOL!

@joshuatopolsky

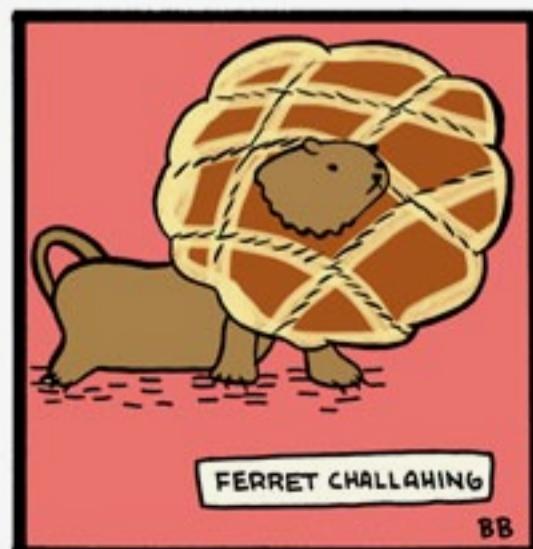
Facebook shares tumble nearly 10% today — how low can it go?

@saschasegan

Facebook Phone: Still Just As Bad An Idea As Every Other Time I Said It Was A Bad Idea.

THE STRIP

BY BOX BROWN



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TIME  
MACHINES

WHAT IS THIS? TAP  TO FIND OUT



## OSBORNE EXECUTIVE

MODERN  
EQUIVALENT:  
The Ultrabook

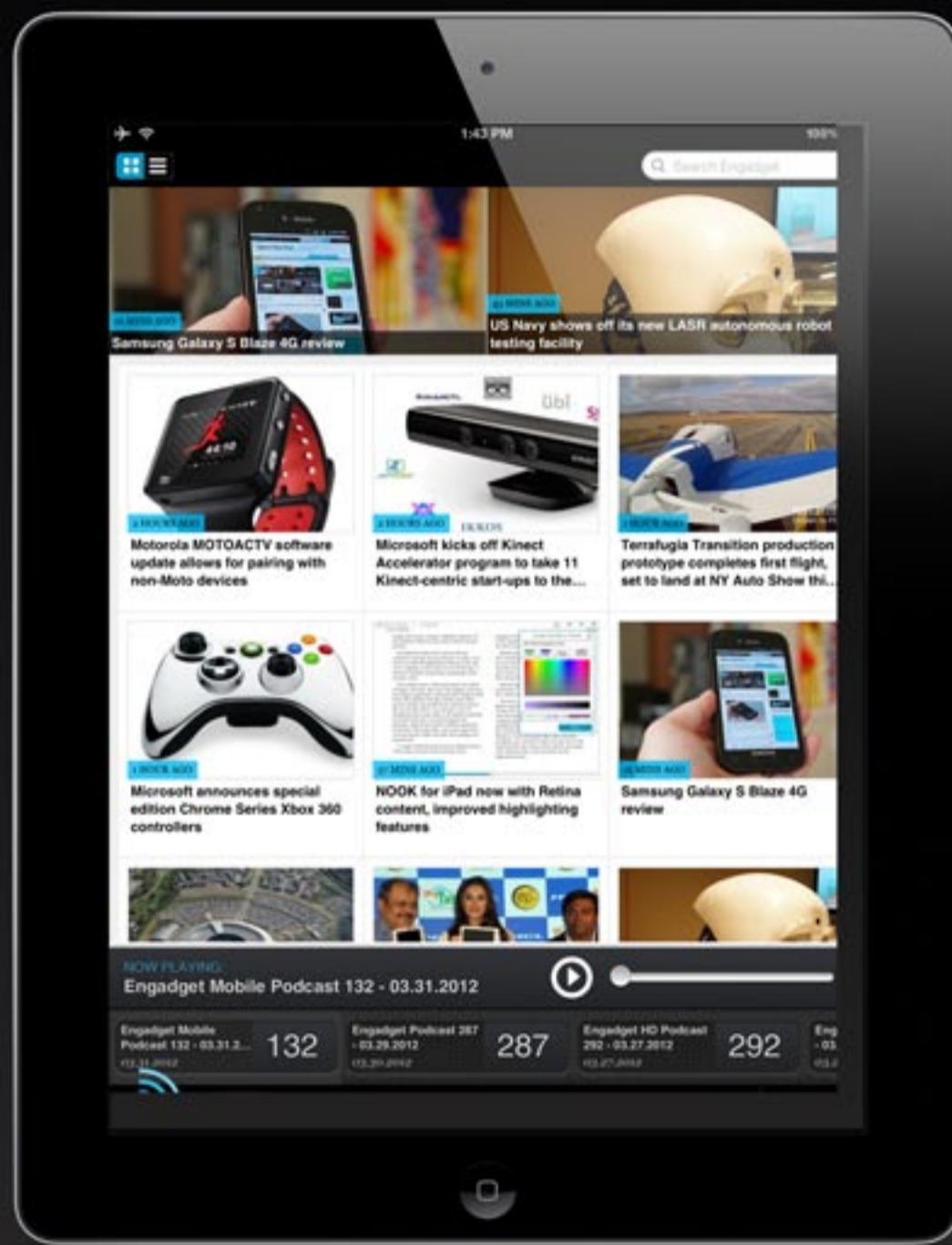


And you think your laptop is heavy. The successor to one of the first portable computers, the Osborne Executive, weighed a whopping 28 pounds when it hit the market in 1982. It cost \$2,500, sported a 7-inch amber monochrome screen and provided 124KB of storage. By contrast, a 13-inch MacBook Air peaks at \$1,600 and offers up to 256GB of storage. This Executive travel companion was discontinued in 1983, when the Osborne Computer Company was forced to file for bankruptcy. PHOTO: WILL LIPMAN



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